FIGURE 1

CTGCAGGCGTCGCGCCAATCTTCGCTCTGAGGTGCTGTCTCACCGGTGAGACCTGGAAGCGGGCGAGTCTCGTGC
TGTGTCGGACCTGCAGCCCCTGGCCTTCCGCCACC**ATG**GAGTACCTCATCGGTATCCAAGGCCCCGACTATGTTC
TTGTCGCCTCCGACCGGGTGGCCGCCAGCAATATTGTCCAGATGAAGGACGATCATGACAAGATGTTTAAGATGA
GTGAAAAGATATTACTCCTGTGTGTTGGAGAGGCTGGAGACACTGTACAGTTTGCAGAATATATTCAGAAAAACG
TGCAACTTTATAAGATGCGAAATGGATATGAATTGTCTCCCACGGCAGCAGCTAACTTCACACGCCGAAACCTGG
CTGACTGTCTTCGGAGTCGGACCCCATATCATGTGAACCTCCTCCTGGCTGGCTATGATGAGCATGAAGGGCCAG
CGCTGTATTACATGGACTACCTGGCAGCCTTGGCCAAGGCCCCTTTTGCAGCCCACGGCTATGGTGCCTTCCTGA
CTCTCAGTATCCTCGACCGATACTACACACCGACTATCTCACGTGAGAGGGCAGTGGAACTCCTTAGGAAATGTC
TGGAGGAGCTCCAGAAACGCTTCATCCTGAATCTGCCAACCTTCAGTGTTCGAATCATTGACAAAAATGGCATCC
ATGACCTGGATAACATTTCCTTCCCCAAACAGGGCTCC**TAA**CATCATGTCCTCCCTCCCACTTGCCAGGGAACTT
TTTTTTGATGGGCTCCTTTATTTTTTTCTACTCTTTTCAGGCGCACTCTTGATAAATGGTTAATTCAGAATAAAG
GTGACTATGGATATAATTGAAAAAA

FIGURE 2

MEYLIGIQGPDYVLVASDRVAASNIVQMKDDHDKMFKMSEKILLLCVGEAGDTVQFAEYIQKNVQLYKMRNGYEL
SPTAAANFTRRNLADCLRSRTPYHVNLLLAGYDEHEGPALYYMDYLAALAKAPFAAHGYGAFLTLSILDRYYTPT
ISRERAVELLRKCLEELQKRFILNLPTFSVRIIDKNGIHDLDNISFPKQGS

FIGURE 3

CTCCGGCGCAGTGTTGGGACTGTCTGGGTATCGGAAAGCAAGCCTACGTTGCTCACTATTACGTATAATCCTTTT
CTTTTCAAG**ATG**CCTGAGGAAGTGCACCATGGAGAGGAGGAGGTGGAGACTTTTGCCTTTCAGGCAGAAATTGCC
CAACTCATGTCCCTCATCATCAATACCTTCTATTCCAACAAGGAGATTTTCCTTCGGGAGTTGATCTCTAATGCT
TCTGATGCCTTGGACAAGATTCGCTATGAGAGCCTGACAGACCCTTCGAAGTTGGACAGTGGTAAAGAGCTGAAA
ATTGACATCATCCCCAACCCTCAGGAACGTACCCTGACTTTGGTAGACACAGGCATTGGCATGACCAAAGCTGAT
CTCATAAATAATTTGGGAACCATTGCCAAGTCTGGTACTAAAGCATTCATGGAGGCTCTTCAGGCTGGTGCAGAC
ATCTCCATGATTGGGCAGTTTGGTGTTGGCTTTTATTCTGCCTACTTGGTGGCAGAGAAAGTGGTTGTGATCACA
AAGCACAACGATGATGAACAGTATGCTTGGGAGTCTTCTGCTGGAGGTTCCTTCACTGTGCGTGCTGACCATGGT
GAGCCCATTGGCAGGGGTACCAAAGTGATCCTCCATCTTAAAGAAGATCAGACAGAGTACCTAGAAGAGAGGCGG
GTCAAAGAAGTAGTGAAGAAGCATTCTCAGTTCATAGGCTATCCCATCACCCTTTATTTGGAGAAGGAACGAGAG
AAGGAAATTAGTGATGATGAGGCAGAGGAAGAGAAAGGTGAGAAAGAAGAGGAAGATAAAGATGATGAAGAAAAA
CCCAAGATCGAAGATGTGGGTTCAGATGAGGAGGATGACAGCGGTAAGGATAAGAAGAAGAAAACTAAGAAGATC
AAAGAGAAATACATTGATCAGGAAGAACTAAACAAGACCAAGCCTATTTGGACCAGAAACCCTGATGACATCACC
CAAGAGGAGTATGGAGAATTCTACAAGAGCCTCACTAATGACTGGGAAGACCACTTGGCAGTCAAGCACTTTTCT
GTAGAAGGTCAGTTGGAATTCAGGGCATTGCTATTTATTCCTCGTCGGGCTCCCTTTGACCTTTTTGAGAACAAG
AAGAAAAAGAACAACATCAAACTCTATGTCCGCCGTGTGTTCATCATGGACAGCTGTGATGAGTTGATACCAGAG
TATCTCAATTTTATCCGTGGTGTGGTTGACTCTGAGGATCTGCCCCTGAACATCTCCCGAGAAATGCTCCAGCAG
AGCAAAATCTTGAAAGTCATTCGCAAAAACATTGTTAAGAAGTGCCTTGAGCTCTTCTCTGAGCTGGCAGAAGAC
AAGGAGAATTACAAGAAATTCTATGAGGCATTCTCTAAAAATCTCAAGCTTGGAATCCACGAAGACTCCACTAAC
CGCCGCCGCCTGTCTGAGCTGCTGCGCTATCATACCTCCCAGTCTGGAGATGAGATGACATCTCTGTCAGAGTAT
GTTTCTCGCATGAAGGAGACACAGAAGTCCATCTATTACATCACTGGTGAGAGCAAAGAGCAGGTGGCCAACTCA
GCTTTTGTGGAGCGAGTGCGGAAACGGGGCTTCGAGGTGGTATATATGACCGAGCCCATTGACGAGTACTGTGTG
CAGCAGCTCAAGGAATTTGATGGGAAGAGCCTGGTCTCAGTTACCAAGGAGGGTCTGGAGCTGCCTGAGGATGAG
GAGGAGAAGAAGAAGATGGAAGAGAGCAAGGCAAAGTTTGAGAACCTCTGCAAGCTCATGAAAGAAATCTTAGAT
AAGAAGGTTGAGAAGGTGACAATCTCCAATAGACTTGTGTCTTCACCTTGCTGCATTGTGACCAGCACCTACGGC
TGGACAGCCAATATGGAGCGGATCATGAAAGCCCAGGCACTTCGGGACAACTCCACCATGGGCTATATGATGGCC
AAAAAGCACCTGGAGATCAACCCTGACCACCCCATTGTGGAGACGCTGCGGCAGAAGGCTGAGGCCGACAAGAAT
GATAAGGCAGTTAAGGACCTGGTGGTGCTGCTGTTTGAAACCGCCCTGCTATCTTCTGGCTTTTCCCTTGAGGAT
CCCCAGACCCACTCCAACCGCATCTATCGCATGATCAAGCTAGGTCTAGGTATTGATGAAGATGAAGTGGCAGCA
GAGGAACCCAATGCTGCAGTTCCTGATGAGATCCCCCCTCTCGAGGGCGATGAGGATGCGTCTCGCATGGAAGAA
GTCGAT**TAG**GTTAGGAGTTCATAGTTGGAAAACTTGTGCCCTTGTATAGTGTCCCCATGGGCTCCCACTGCAGCC
TCGAGTGCCCCTGTCCCACCTGGCTCCCCCTGCTGGTGTCTAGTGTTTTTTTCCCTCTCCTGTCCTTGTGTTGAA
GGCAGTAAACTAAGGGTGTCAAGCCCCATTCCCTCTCTACTCTTGACAGCAGGATTGGATGTTGTGTATTGTGGT
TTATTTTATTTTCTTCATTTTGTTCTGAAATTAAAGTATGCAAAATAAAGAATATGCCGTTTTAAAAAAAAAAAA
AAAAAAAAAAAAAAAA

FIGURE 4

MPEEVHHGEEEVETFAFQAEIAQLMSLIINTFYSNKEIFLRELISNASDALDKIRYESLTDPSKLDSGKELKIDI
IPNPQERTLTLVDTGIGMTKADLINNLGTIAKSGTKAFMEALQAGADISMIGQFGVGFYSAYLVAEKVVVITKHN
DDEQYAWESSAGGSFTVRADHGEPIGRGTKVILHLKEDQTEYLEERRVKEVVKKHSQFIGYPITLYLEKEREKEI
SDDEAEEEKGEKEEEDKDDEEKPKIEDVGSDEEDDSGKDKKKKTKKIKEKYIDQEELNKTKPIWTRNPDDITQEE
YGEFYKSLTNDWEDHLAVKHFSVEGQLEFRALLFIPRRAPFDLFENKKKKNNIKLYVRRVFIMDSCDELIPEYLN
FIRGVVDSEDLPLNISREMLQQSKILKVIRKNIVKKCLELFSELAEDKENYKKFYEAFSKNLKLGIHEDSTNRRR
LSELLRYHTSQSGDEMTSLSEYVSRMKETQKSIYYITGESKEQVANSAFVERVRKRGFEVVYMTEPIDEYCVQQL
KEFDGKSLVSVTKEGLELPEDEEEKKKMEESKAKFENLCKLMKEILDKKVEKVTISNRLVSSPCCIVTSTYGWTA
NMERIMKAQALRDNSTMGYMMAKKHLEINPDHPIVETLRQKAEADKNDKAVKDLVVLLFETALLSSGFSLEDPQT
HSNRIYRMIKLGLGIDEDEVAAEEPNAAVPDEIPPLEGDEDASRMEEVD

FIGURE 5

GAATTCCGGGCC**ATG**AGCTGCCCCGTGCCCGCCTGCTGCGCGCTGCTGCTAGTCCTGGGGCTCTGCCGGGCGCGT
CCCCGGAACGCACTGCTGCTCCTCGCGGATGACGGAGGCTTTGAGAGTGGCGCGTACAACAACAGCGCCATCGCC
ACCCCGCACCTGGACGCCTTGGCCCGCCGCAGCCTCCTCTTTCGCAATGCCTTCACCTCGGTCAGCAGCTGCTCT
CCCAGCCGCGCCAGCCTCCTCACTGGCCTGCCCCAGCATCAGAATGGGATGTACGGGCTGCACCAGGACGTGCAC
CACTTCAACTCCTTCGACAAGGTGCGGAGCCTGCCGCTGCTGCTCAGCCAAGCTGGTGTGCGCACAGGCATCATC
GGGAAGAAGCACGTGGGGCCGGAGACCGTGTACCCGTTTGACTTTGCGTACACGGAGGAGAATGGCTCCGTCCTC
CAGGTGGGGCGGAACATCACTAGAATTAAGCTGCTCGTCCGGAAATTCCTGCAGACTCAGGATGACCGGCCTTTC
TTCCTCTACGTCGCCTTCCACGACCCCCACCGCTGTGGGCACTCCCAGCCCCAGTACGGAACCTTCTGTGAGAAG
TTTGGCAACGGAGAGAGCGGCATGGGTCGTATCCCAGACTGGACCCCCCAGGCCTACGACCCACTGGACGTGCTG
GTGCCTTACTTCGTCCCCAACACCCCGGCAGCCCGAGCCGACCTGGCCGCTCAGTACACCACCGTCGGCCGCATG
GACCAAGGAGTTGGACTGGTGCTCCAGGAGCTGCGTGACGCCGGTGTCCTGAACGACACACTGGTGATCTTCACG
TCCGACAACGGGATCCCCTTCCCCAGCGGCAGGACCAACCTGTACTGGCCGGGCACTGCTGAACCCTTACTGGTG
TCATCCCCGGAGCACCCCAAAACGCTGGGGCCAAGTCAGCGAGGCCTACGTGAGCCTCCTAGACCTCACGCCCACC
ATCTTGGATTGGTTCTCGATCCCGTACCCCAGCTACGCCATCTTTGGCTCGAAGACCATCCACCTCACTGGCCGG
TCCCTCCTGCCGGCGCTGGAGGCCGAGCCCCTCTGGGCCACCGTCTTTGGCAGCCAGAGCCACCACGAGGTCACC
ATGTCCTACCCCATGCGCTCCGTGCAGCACCGGCACTTCCGCCTCGTGCACAACCTCAACTTCAAGATGCCCTTT
CCCATCGACCAGGACTTCTACGTCTCACCCACCTTCCAGGACCTCCTGAACCGCACCACAGCTGGTCAGCCCACG
GGCTGGTACAAGGACCTCCGTCATTACTACTACCGGGCGCGCTGGGAGCTCTACGACCGGAGCCGGGACCCCCAC
GAGACCCAGAACCTGGCCACCGACCCGCGCTTTGCTCAGCTTCTGGAGATGCTTCGGGACCAGCTGGCCAAGTGG
CAGTGGGAGACCCACGACCCCTGGGTGTGCGCCCCCGACGGCGTCCTGGAGGAGAAGCTCTCTCCCCAGTGCCAG
CCCCTCCACAATGAGCTG**TGA**CCATCCCAGGAGGCCTGTGCACACATCCCAGGCATGTCCCAGACACATCCCACA
CGTGTCCGTGTGGCCGGCCAGCCTGGGGAGTAGTGGCAACAGCCCTTCCGTCCACACTCCCATCCAAGGAGGGTT
CTTCCTTCCTGTGGGGTCACTCTTGCCATTGCCTGGAGGGGGACCAGAGCATGTGACCAGAGCATGTGCCCAGCC
CCTCCACCACCAGGGGCACTGCCGTCATGGCAGGGGACACAGTTGTCCTTGTGTCTGAACCATGTCCCAGCACGG
GAATTCTAGACATACGTGGTCTGCGGACAGGGCAGCGCCCCCAGCCCATGACAAGGGAGTCTTGTTTTCTGGCTT
GGTTTGGGGACCTGCAAATGGGAGGCCTGAGGCCCTCTTCAGGCTTTGGCAGCCACAGATACTTCTGAACCCTTC
ACAGAGAGCAGGCAGGGGCTTCGGTGCCGCGTGGGCAGTACGCAGGTCCCACCGACACTCACCTGGGAGCACGGC
GCCTGGCTCTTACCAGCGTCTGGCCTAGAGGAAGCCTTTGAGCGACCTTTGGGCAGGTTTCTGCTTCTTCTGTTT
TGCCCATGGTCAAGTCCCTGTTCCCCAGGCAGGTTTCAGCTGATTGGCAGCAGGCTCCCTGAGTGATGAGCTTGA
ACCTGTGGTGTTTCTGGGCAGAAGCTTATCTTTTTTGAGAGTGTCCGAAGATGAAGGCATGGCGATGCCCGTCCT
CTGGCTTGGGTTAATTCTTCGGTGACACTGGCATTGCTGGGTGGTGATGCCCGTCCTCTGGCTTGGGTTAATTCT
TCGGTGACACTGGCGTTGCTGGGTGGCAATGCCCGTCCTCTGGCTTGGGTTAATTCTTCGGTGACACTGGCGTTG
CTGGGTGGCGATGCCCGTCCTCTGGCTTGGGTTAATTCTTGGATGACGTCGGCGTTGCTGGGAGAATGTGCCGTT
CCTGCCCTGCCTCCACCCACCTCGGGAGCAGAAGCCCGGCCTGGACACCCCTCGGCCTGGACACCCCTCGAAGGA
GAGGGCGCTTCCTTGAGTAGGTGGGCTCCCCTTGCCCTTCCCTCCCTATCACTCCATACTGGGGTGGGCTGGAGG
AGGCCACAGGCCAGCTATTGTAAAAGCTTTTT

FIGURE 6

MSCPVPACCALLLVLGLCRARPRNALLLLADDGGFESGAYNNSAIATPHLDALARRSLLFRNAFTSVSSCSPSRA
SLLTGLPQHQNGMYGLHQDVHHFNSFDKVRSLPLLLSQAGVRTGIIGKKHVGPETVYPFDFAYTEENGSVLQVGR
NITRIKLLVRKFLQTQDDRPFFLYVAFHDPHRCGHSQPQYGTFCEKFGNGESGMGRIPDWTPQAYDPLDVLVPYF
VPNTPAARADLAAQYTTVGRMDQGVGLVLQELRDAGVLNDTLVIFTSDNGIPFPSGRTNLYWPGTAEPLLVSSPE
HPKRWGQVSEAYVSLLDLTPTILDWFSIPYPSYAIFGSKTIHLTGRSLLPALEAEPLWATVFGSQSHHEVTMSYP
MRSVQHRHFRLVHNLNFKMPFPIDQDFYVSPTFQDLLNRTTAGQPTGWYKDLRHYYYRARWELYDRSRDPHETQN
LATDPRFAQLLEMLRDQLAKWQWETHDPWVCAPDGVLEEKLSPQCQPLHNEL

FIGURE 7

TATATTGGCAGTTATTGAGGGTAAAGCAATATATTGTAACAGAATGTATAAATATTTTTGATAAAACAGTCTATA
TTTTATTAAAAAATGAATTATAACCCATTTTCAGTTTTGCCTGCATCATAAGAGTGAGCACTCCATTGCTTTCTT
TCCTGGCCACACTGCTACAATCCAGCACTAACTATCCATGTCCAGGGTAAGGATCGAGATCGAGAAGCCCACACT
GCCAGTGAAAAAGCTACGTCTTTACTGCATAAATTAGAGGAAGCAATTTCGGAACAACGGAACCTTCAAACTATA
AATACTGAATTATCGAACACTTGCCAGGCACTTCAGCAGAAGACAAGGAAACTGAAGAAGCTTTTTAGATGAGGA
ATTTCCTCACTATGATTCCCTGTCCTGCGCAGATGCAATTCAACAACCTCTTCAAGAAAAATTGAAGCAGTGTTG
CCACAAACTATATGGTGGTCAAGAAGCAAGAATACATCAGACACCCCTGACCTTGAAACATACGTGCTGGTACAC
ACCTCTGCTGG**ATG**CCTTATCTCTGGATAGTTTTACAGCAGTTCCAACCCTGGAATCAACACCTTTCTCAGGTGT
AGCCAACCAAATCCACACTCTGTGTGAAAGGCCCACATATGGAGAAGTAAAGGATGGTGCTTTGGATGTAAAAAG
ACAACACAAGTGCCCAGGCCCCACAAGTGGCCCCAGCCCAGGAACGAATCTCTCAGGCTGCATCAGGATGAATGA
TGACCCAAGTATGGAAGAGAATGGTGTTGAACGCGTGTGTCCTGAGAGCCTGCTGCAGTCCAGGGGATATTCCTC
ACTACCATTACCCAGACACACTTCATCGACAGACGGTACTATAACTTCAAGTGATCCTGGATTAGAAATTCTGAA
TATGGCTTCTTGTGACCTTGACAGAAACTCGCTCTGTAAGAAAGAGGAGGATACAAGATCAGCTTCTCCCACGAT
AGAGGCCCAAGGCACAAGTCCAGCTCATGATAATATTGCATTCCAAGACTCTACGAGTAAGGATAAAACCATATT
AAATCTGGAAGCCAAAGAGGAACCAGAAACAATAGAAGAACATAAAAAAGAACATGCTTCAGGAGACTCTGTGGT
TTCCCCTCTTCCTGTAACCACTGTGAAATCGGTTAACGTTAGACAAAGTGAGAACACTTCTGCTAATGAGAAGGA
GGTGGAGGCAGAATTTCTCAGATTATCTTTGGGATTTAAGTGTGACTGGTTTACCTTGGAGAAGAGAGTGAAGCT
TGAAGAGAGGTCCCGTGACTGGGCAGAAGAAAATTTGAAGAAAGAAATCACTAACTCTTTAAAACTATTAGAGTC
TTTAACACCTCTGTGTGAAGATGACAACCAGGCACAGGAAATCATTAAGAAGCTGGAGAAGAGTATAAAGTTTCT
TAGCCAGTGTGCAGCACGAGTGGCCAGTAGGGCTGAGATGTTGGGAGCCATCAATCAGGAAAGCCGGGTTAGTAA
AGCAGTTGAAGTGATGATTCAGCACGTAGAAAACTTGAAGAGGATGTATGCCAAAGAGCACGCTGAATTAGAAGA
ACTGAAACAGGTTCTTCTGCAGAATGAAAGGTCTTTCAATCCTCTTGAAGATGATGATGACTGCCAAATTAAAAA
ACGTTCAGCTTCTCTAAACTCCAAGCCATCTTCTCTACGAAGAGTGACTATTGCCTCTTTACCCAGAAATATTGG
AAATGCAGGAATGGTGGCTGGGATGGAAAATAATGATCGATTCAGTAGAAGGTCAAGCAGTTGGCGTATTTTGGG
GTCAAAGCAGAGTGAACACCGTCCCTCATTACCTCGATTTATTAGCACCTATTCCTGGGCAGATGCTGAAGAAGA
AAAATGTGAACTAAAAACTAAAGATGACTCAGAGCCATCTGGAGAAGAAACAGTAGAAAGGACAAGGAAGCCAAG
TCTTTCTGAAAAGAAAAATAATCCATCAAAGTGGGATGTCTCTTCAGTTTATGACACAATAGCTTCCTGGGCAAC
AAATCTCAAGTCCTCCATCAGAAAGGCTAATAAGGCCCTCTGGCTCTCTATTGCATTCATTGTACTGTTTGCAGC
TTTGATGAGCTTCCTCACAGGCCAATTATTCCAGAAGTCTGTGGATGCCGCTCCCACACAGCAAGAGGACTCATG
GACGTCTCTAGAACATATCTTGTGGCCATTTACCAGACTCCGACACAATGGGCCACCACCAGTG**TGA**CAGCAGGA
CATCCTAATATATGGATCTTGATTTTTAAGTTTCAGTATCTGAACTTCGTAAATTAGTAACTTTTAGCTGGGAAA
GTATAGCATGAAACCAGAGGTTCTCAGAATGACCGTAAGATAGCTTACATTTCCTCTTTTTGCCTTTATCTCCCC
AACTAAAATACAATGGG

FIGURE 8

MESTPFSGVANQIHTLCERPTYGEVKDGALDVKRQHKCPGPTSGPSPGTNLSGCIRMNDDPSMEENGVERVCPES
LLQSRGYSSLPLPRHTSSTDGTITSSDPGLEILNMASCDLDRNSLCKKEEDTRSASPTIEAQGTSPAHDNIAFQD
STSKDKTILNLEAKEEPETIEEHKKEHASGDSVVSPLPVTTVKSVNVRQSENTSANEKEVEAEFLRLSLGFKCDW
FTLEKRVKLEERSRDWAEENLKKEITNSLKLLESLTPLCEDDNQAQEIIKKLEKSIKFLSQCAARVASRAEMLGA
INQESRVSKAVEVMIQHVENLKRMYAKEHAELEELKQVLLQNERSFNPLEDDDDCQIKKRSASLNSKPSSLRRVT
IASLPRNIGNAGMVAGMENNDRFSRRSSSWRILGSKQSEHRPSLPRFISTYSWADAEEEKCELKTKDDSEPSGEE
TVERTRKPSLSEKKNNPSKWDVSSVYDTIASWATNLKSSIRKANKALWLSIAFIVLFAALMSFLTGQLFQKSVDA
APTQQEDSWTSLEHILWPFTRLRHNGPPPV

FIGURE 9

AGTAATTCCGGGAAGCTCGCCTTACAACTCCGCGCGGCCTCGGCCCCCTGCGCCGCCCGCCCCACAACAAAACTC
AGCGCAGCGCTCCCGGGCGCCCGGTTCAGAGCGACCTGCGGCTCAGAGCGGAGGGGAGACTGACCGGAGCGCGGA
TCGGGACAGCGGCCGGGACAGCGGCGAGACGCGCGTGTGTGAGCGCGCCGGACCAAGCGGGCCCAGAAGCGGGTC
TGCAGCCCAGAGGGCACCTTCTGCAAAC**ATG**TCTGTGGATCCCCTATCCAGCAAAGCTCTAAAGATCAAGCGAGA
GCTGAGCGAGAACACGCCGCACCTGTCGGACGAGGCGCTGATGGGGCTGTCGGTGCGCGAGCTGAACCGGCATCT
GCGCGGGCTCTCCGCCGAGGAGGTGACACGGCTCAAGCAGCGGCGCCGCACACTCAAAAACCGTGGCTACGCCGC
CAGCTGCCGCGTGAAGCGCGTGTGCCAGAAGGAGGAGCTGCAGAAGCAGAAGTCGGAGCTGGAGCGCGAGGTGGA
CAAGCTGGCGCGCGAGAACGCCGCCATGCGCCTGGAGCTCGACGCGCTGCGCGGCAAGTGCGAGGCGCTGCAGGG
CTTCGCGCGCTCCGTGGCCGCCGCCCGCGGGCCCGCCACGCTCGTGGCGCCGGCCAGCGTCATCACCATCGTCAA
GTCCACCCCGGGCTCGGGGTCTGGCCCCGCCCACGGCCCGGACCCCGCCCACGGCCCGGCCTCCTGCTCC**TAG**TG
CCCGCCCCCGCCATGCCTCAGCCACGCCCCTCCGGCCTCAGCTCCCTCCCCAAAGTGCCTGAGCGCCGCCTCTGT
GCCCAGGTCCCATTTCTCTGCAGCACTGGCCCCTTGGTGCACACACATTCCCTTCGTGGGCCCTGTCTTCCTCTT
GCAGCCCCCCAAACTGGGACCGAATGACCCTGGGAAGGGGAACTTGGGTAGGTTGGGGATGGGGCAGAGGTCTGG
ATCTGGGATCGCCCTTGGCTGAAAGTTTAGCCTTTTTAGATTGAGAGATACAGAGCCGGCTTAGAGAACAGCTGT
TGGGGGAGAAGAGGGCACCCCTCATCTTGGAAACTGCTCTTATTGTGCCAATATGCCCTCCAAACCCTCCCAGGA
TTCAAAGCTAGGTTTGGCTGTCTGTGACTTACGGGACCGTCCTGCTGAGAAATTGCACTGAAGAGATGCCCCCAC
CTCTGGTTGGGCCTGGGGGTGCCTGGCCTTCCGAAACTAAAAGAGTGGGTGGGAAGACTAGTGAAACCCAGTTCA
CGGATGGGGAAACAGGCCTGAGGTCACATTTCACTTAGTGGTTGTGTTGGGACCAAAACCTGGGTGTCCTCACTG
CTGCCCTGAGTCCAGCCATGGTTTTCAGGGGGACAGTGGACAGGGACTCAGAAATGTGGTGGGAGGGCCTCCCTG
GCTTGGGAGACCGCTCTCTGCAAGGGAGGGGGAGAGAAGCAGAGGGAGAGAGAAGGTGACACGGATGGAAGAGTG
GGAAGGAGCTGGCCTGGCTCAGCCCTAGGCTGTCCCTGCAGCCAGGGTGTCCGGGGGCTGGCCAGTCAGAGAAAG
GGGGCCATGGACTGCTGTGGCAAATAGGGAGACAAGGAGACAGACCCTGCAGTCCTACTACAGTCTGGAGTGGGG
TCCTAAGAAGAAGGGTCCCACCTCAACCCCTGTCAGTGTCCACTGTGGGGTGGGGGCTGACCCCTGCCTTTGATT
GTCATTCTCCTGGGAAGCCCAGTCTCAGTCCCTCCCCCAACACTGTCCACACTGCCCCTCCCCACTGTTTATTTA
TTGCACGGATCTAAGTTATTCTCCCCAGCCAGAGCCCGAGCTCCTGCTCCCTGGGAAAAGTGGCGTATGGCCCTG
AGCTGGGCTTTATATTTTATATCTGCAAATAAATCACATTTTATCTTATATTTAGGGAAAGCCGGAGAGCAACAA
CAAAAAATGTTTAAGCCGGGCGCGGTGGCTCACATCTGTAATCCCAGCACTTTGGGAGTCCAAGGAGGGGGATCG
CTTGAGTCCAGGAGTTTGAGACCAGCCTGGACAACATGGTGAAACCCCGTCTCTACAAAAAATACAAAAATTAGC
CATGCATGGTGGCTCATGCCTGTAGTCCCAGCTACTTGGGAGGCTGAGGCAGGAGGATCACTTAAGCCCAGAAGG
CAGAGGTTGTAGTGAGCTGAGATCGCACCACTGCACTCCAGCCTGGGCAACATAGCAAAATCCTGTCTCAAAAAA
AAAGTTAAAAAATATTGCCCGGCTCCTAGAATTTATTTATTTCCTGACTTACAGCAAGCGAGTTATCGTCTTCTG
TATTTTGTAGACTTTCTAAATAAAGTCAAATTCTTTCTTTTTCCACAGAGAAAAAAA

FIGURE 10

MSVDPLSSKALKIKRELSENTPHLSDEALMGLSVRELNRHLRGLSAEEVTRLKQRRRTLKNRGYAASCRVKRVCQ
KEELQKQKSELEREVDKLARENAAMRLELDALRGKCEALQGFARSVAAARGPATLVAPASVITIVKSTPGSGSGP
AHGPDPAHGPASCS

ACGCGTCCGCTTCGGAATGAGAGACTCAACCATAATAGAAAGAATGGAGAACTATTAACCACCATTCTTCAGTGG
GCTGTGATTTTCAGAGGGGAATACTAAGAAATGGTTTTCCATACTGGAACCCAAAGGTAAAGACACTCAAGGACA
GACATTTTTGGCAGAGCATAG**ATG**AAAATGGCAAGTTCCCTGGCTTTCCTTCTGCTCAACTTTCATGTCTCCCTC
TTCTTGGTCCAGCTGCTCACTCCTTGCTCAGCTCAGTTTTCTGTGCTTGGACCCTCTGGGCCCATCCTGGCCATG
GTGGGTGAAGACGCTGATCTGCCCTGTCACCTGTTCCCGACCATGAGTGCAGAGACCATGGAGCTGAGGTGGGTG
AGTTCCAGCCTAAGGCAGGTGGTGAACGTGTATGCAGATGGAAAGGAAGTGGAAGACAGGCAGAGTGCACCATAT
CGAGGGAGAACTTCGATTCTGCGGGATGGCATCACTGCAGGGAAGGCTGCTCTCCGAATACACAACGTCACAGCC
TCTGACAGTGGAAAGTACTTGTGTTATTTCCAAGATGGTGACTTCTACGAAAAGCCCTGGTGGAGCTGAAGGTT
GCAGCATTGGGTTCTGATCTTCACATTGAAGTGAAGGGTTATGAGGATGGAGGGATCCATCTGGAGTGCAGGTCC
ACTGGCTGGTACCCCCAACCCCAAATAAAGTGGAGCGACACCAAGGGAGAGAACATCCCGGCTGTGGAAGCACCT
GTGGTTGCAGATGGAGTGGGCCTGTATGCAGTAGCAGCATCTGTGATCATGAGAGGCAGCTCTGGTGGGGGTGTA
TCCTGCATCATCAGAAATTCCCTCCTCGGCCTGGAAAAGACAGCCAGCATATCCATCGCAGACCCCTTCTTCAGG
AGCGCCCAGCCCTGGATCGCGGCCCTGGCAGGGACCCTGCCTATCTCGTTGCTGCTTCTCGCAGGAGCCAGTTAC
TTCTTGTGGAGACAACAGAAGGAAAAAATTGCTCTGTCCAGGGAGACAGAAAGAGAGCGAGAGATGAAAGAAATG
GGATACGCTGCAACAGAGCAAGAAATAAGCCTAAGAGAGAAGCTCCAGGAGGAACTCAAGTGGAGGAAAATCCAG
TACATGGCTCGTGGAGAGAAGTCTTTGGCCTATCATGAATGGAAAATGGCCCTCTTCAAACCTGCGGATGTGATT
CTGGATCCAGACACGGCAAACGCCATCCTCCTTGTTTCTGAGGACCAGAGGAGTGTGCAGCGTGCTGAAGAGCCG
CGGGATCTGCCAGACAACCCTGAGAGATTTGAATGGCGTTACTGTGTCCTTGGCTGTGAAAACTTCACATCAGGG
AGACATTACTGGGAGGTGGAAGTGGGGGACAGAAAGAGTGGCATATTGGGGTATGTAGTAAGAACGTGGAGAGG
AAAAAAGGTTGGGTCAAAATGACACCGGAGAACGGATACTGGACTATGGGCCTGACTGATGGGAATAAGTATCGG
GCTCTCACTGAGCCCAGAACCAACCTGAAACTTCCTGAGCCTCCTAGGAAAGTGGGGATCTTCCTGGACTATGAG
ACTGGAGAGATCTCGTTCTATAATGCCACAGATGGATCTCATATCTACACCTTTCCGCACGCCTCTTTCTCTGAG
CCTCTATATCCTGTTTTCAGAATTTTGACCTTGGAGCCCACTGCCCTGACCATTTGCCCAATACCAAAAGAAGTA
GAGAGTTCCCCCGATCCTGACCTAGTGCCTGATCATTCCCTGGAGACACCACTGACCCCGGGCTTAGCTAATGAA
AGTGGGGAGCCTCAGGCTGAAG̃TAACATCTCTGCTTCTCCCTGCCCACCCTGGAGCTGAGGTCTCCCCTTCTGCA
ACAACCAATCAGAACCATAAGCTACAGGCACGCACTGAAGCACTTTAC**TGA**TATTCATTCCATTATTCCATATGA
CAGTTGTTTTGAGTTTCGTACCACCTTATTGTCCCCTTATACAGATAAGGAAACTGGGGTGCAGAAAGGTGAATT
AACTTTACAAAGTAGACATGACAAGTGAACAGCAGAGCTGGGATCTAAACAGCAATAACTAACATTAACAGAGAA
TTTAAAATGTTCTTAGTGCTGTGTTATAAGCTTTGGTGGATGTCACTCCTTTAATCCTCACAACACCCTGTCGGG
TAGTCATATTTTGCAAGTATGGAAGCTGAGGCAGGGCAACATGAAGTAACTTACATAATTCATACAGTAATTTGT
GCAGTTGGGAGATGTTCAGCCTTAGTCCCTGGCTAATTGCCTGTTCTTTTCCAGCCTGATTTTTTTTCCCACAGG
AAGAGCCCACATGTAGCCCTGAGGTTTCCTTCCCAGGACAGCTGCAGGGTAGAGATCATTTTAAGTGCTTGTGGA
GTTGACATCCCTATTGACTCTTTCCCAGCTGATATCAGAGACTTAGACCCAGCACTCCTTGGATTAGCTCTGCAG
AGTGTCTTGGTTGAGAGAATAACCTCATAGTACCAACATGACATGTGACTTGGAAAGAGACTAGAGGCCACACTT
GATAAATCATGGGGCACAGATATGTTCCCACCCAACAAATGTGATAAGTGATTGTGCAGCCAGAGCCAGCCTTCC
TTCAATCAAGGTTTCCAGGCAGAGCAAATACCCTAGAGATTCTCTGTGATATAGGAAATTTGGATCAAGGAAGCT
AAAAGAATTACAGGGATGTTTTAATCCCACTATGGACTCAGTCTCCTGGAAATAGGTCTGTCCACTCCTGGTCA
TTGGTGGATGTTAAACCCATATTCCTTTCAACTGCTGCCTGCTAGGGAAACTGCTCCTCATTATCATCACTATT
ATTGCTCACCACTGTATCCCCTCTACTTGGCAAGTGGTTGTCAAGTTCTAGT̃TGTTCAATAAATGTGTTAATAAT
GAAAAAAAAAAA

FIGURE 12

MKMASSLAFLLLNFHVSLFLVQLLTPCSAQFSVLGPSGPILAMVGEDADLPCHLFPTMSAETMELRWVSSSLRQV
VNVYADGKEVEDRQSAPYRGRTSILRDGITAGKAALRIHNVTASDSGKYLCYFQDGDFYEKALVELKVAALGSDL
HIEVKGYEDGGIHLECRSTGWYPQPQIKWSDTKGENIPAVEAPVVADGVGLYAVAASVIMRGSSGGGVSCIIRNS
LLGLEKTASISIADPFFRSAQPWIAALAGTLPISLLLLAGASYFLWRQQKEKIALSRETEREREMKEMGYAATEQ
EISLREKLQEELKWRKIQYMARGEKSLAYHEWKMALFKPADVILDPDTANAILLVSEDQRSVQRAEEPRDLPDNP
ERFEWRYCVLGCENFTSGRHYWEVEVGDRKEWHIGVCSKNVERKKGWVKMTPENGYWTMGLTDGNKYRALTEPRT
NLKLPEPPRKVGIFLDYETGEISFYNATDGSHIYTFPHASFSEPLYPVFRILTLEPTALTICPIPKEVESSPDPD
LVPDHSLETPLTPGLANESGEPQAEVTSLLLPAHPGAEVSPSATTNQNHKLQARTEALY

FIGURE 13A

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CCGGGCTGCGCGGCGAGGCTGAGCCGGGCCCGGGCGCCGGGGCCGGGGGCGGCTGGCGCGGGCAGGAAGCGCCTC
GCGGACCCGGGCCCGCCCCCCGCCTCCCGCCGCCTCCGGGCTCCCGGCTCCCGGCCGCGCCTCGCCCCATGCACT
CGCCGCGCCGCGCAGCCCGCGCACGCCCGGATGGCTCCTCGCGCCGCGGGCGGCGCACCCCTTAGCGCCCGGGCC
GCCGCCGCCAGCCCCCCGCCGTTCCAGACGCCGCCGCGGTGCCCGGTGCCGCTGCTGTTGCTGCTGCTCCTGGGG
GCGGCGCGGGCCGGCGCCCTGGAGATCCAGCGTCGGTTCCCCTCGCCCACGCCCACCAACAACTTCGCCCTGGAC
GGCGCGGCGGGGACCGTGTACCTGGCGGCCGTCAACCGCCTCTATCAGCTGTCGGGCGCCAACCTGAGCCTGGAG
GCCGAGGCGGCCGTGGGCCCGGTGCCCGACAGCCCGCTGTGTCACGCTCCGCAGCTGCCGCAGGCCTCGTGCGAG
CACCCGCGGCGCCTCACGGACAACTACAACAAGATCCTGCAGCTGGACCCCGGCCAGGGCCTGGTAGTCGTGTGC
GGGTCCATCTACCAGGGCTTCTGCCAGCTGCGGCGCCGGGGTAACATCTCGGCCGTGGCCGTGCGCTTCCCGCCC
GCCGCGCCGCCCGCCGAGCCCGTCACGGTGTTCCCCAGCATGCTGAACGTGGCGGCCAACCACCCGAACGCGTCC
ACCGTGGGGCTAGTTCTGCCTCCCGCCGCGGGCGCGGGGGGCAGCCGCCTGCTCGTGGGCGCCACGTACACCGGT
TACGGCAGCTCCTTCTTCCCGCGCAACCGCAGCCTGGAGGACCACCGCTTCGAGAACACGCCCGAGATCGCCATC
CGCTCCCTGGACACGCGCGGCGACCTGGCCAAGCTCTTCACCTTCGACCTCAACCCCTCCGACGACAACATCCTC
AAGATCAAGCAGGGCGCCAAGGAGCAGCACAAGCTGGGCTTCGTGAGCGCCTTCCTGCACCCGTCCGACCCGCCG
CCGGGTGCACAGTCCTACGCGTACCTGGCGCTCAACAGCGAGGCGCGCGCGGGCGACAAGGAGAGCCAGGCGCGG
AGCCTGCTGGCGCGCATCTGCCTGCCCCACGGCGCCGGCGGCGACGCCAAGAAGCTCACCGAGTCCTACATCCAG
TTGGGCTTGCAGTGCGCGGGCGGCGCGGGCCGCGGCGACCTCTACAGCCGCCTGGTGTCGGTCTTCCCAGCCCGG
GAGCGGCTCTTTGCTGTCTTCGAGCGGCCCCAGGGGTCCCCGCGGCCCGCGCTGCTCCGGCCGCACTCTGCGCC
TTCCGCTTCGCCGACGTGCGAGCCGCCATCCGAGCTGCGCGCACCGCCTGCTTCGTGGAACCGGCGCCCGACGTG
GTGGCGGTGCTCGACAGCGTGGTGCAGGGCACGGGACCGGCCTGCGAGCGCAAGCTCAACATCCAGCTCCAGCCA
GAGCAGCTGGACTGTGGAGCTGCTCACCTGCAGCACCCGCTGTCCATCCTGCAGCCCCTGAAGGCCACGCCCGTG
TTCCGCGCCCCGGGCCTCACCTCCGTGGCCGTGGCCAGCGTCAACAACTACACAGCGGTCTTCCTGGGCACGGTC
AACGGGAGGCTTCTCAAGATCAACCTGAACGAGAGCATGCAGGTGGTGAGCAGGCGGGTGGTGACTGTGGCCTAT
GGGGAGCCCGTGCACCATGTCATGCAGTTTGACCCAGCAGACTCCGTTTACCTTTACCTGATGACGTCCCACCAG
ATGGCCAGGGTGAAGGTCGCCGCCTGCAACGTGCACTCCACCTGTGGGGACTGCGTGGGTGCGGCGGACGCCTAC
TGCGGCTGGTGTGCCCTGGAGACGCGGTGCACCTTGCAGCAGGACTGCACCAATTCCAGCCAGCAGCATTTCTGG
ACCAGTGCCAGCGAGGGCCCCAGCCGCTGTCCTGCCATGACCGTCCTGCCTTCCGAGATCGATGTGCGCCAGGAG
TACCCAGGCATGATCCTGCAGATCTCGGGCAGCCTGCCCAGCCTCAGTGGCATGGAGATGGCCTGTGACTATGGG
AACAACATCCGCACTGTGGCTCGGGTCCCAGGCCCTGCCTTTGGTCACCAGATTGCCTACTGCAACCTCCTGCCG
AGGGACCAGTTTCCGCCCTTCCCCCCCAACCAGGACCACGTGACTGTTGAGATGTCTGTGAGGGTCAATGGGCGG
AACATCGTCAAGGCCAATTTCACCATCTACGACTGCAGCCGCACTGCACAAGTGTACCCCCACACAGCCTGTACC
AGCTGCCTGTCGGCACAGTGGCCCTGTTTCTGGTGCAGCCAGCAGCACTCCTGTGTTTCCAACCAGTCTCGGTGC
GAGGCCTCACCAAACCCCACGAGCCCTCAGGACTGCCCCCGGACCCTGCTCTCACCCCTGGCACCCGTGCCTACG
GGTGGCTCCCAGAACATCCTGGTGCCTCTGGCCAACACTGCCTTTTTCCAGGGTGCAGCCCTGGAGTGTAGTTTT
GGGCTGGAGGAGATCTTCGAGGCTGTGTGGGTGAATGAGTCTGTTGTACGCTGTGACCAGGTGGTGCTGCACACG
ACCCGGAAGAGCCAGGTGTTCCCGCTCAGCCTCCAACTAAAGGGGCGGCCAGCCCGATTCCTGGACAGCCCTGAG
CCCATGACAGTCATGGTCTATAACTGTGCCATGGGCAGCCCCGACTGTTCCCAGTGCCTGGGCCGCGAAGACCTG
GGTCACCTGTGCATGTGGAGTGATGGCTGCCGCCTGCGGGGGCCTCTGCAGCCCATGGCTGGCACCTGCCCCGCC
CCCGAGATCCGCGCGATTGAGCCCCTGAGTGGCCCGTTGGACGGTGGGACCCTGCTGACCATCCGAGGAAGGAAC
CTGGGCCGGCGGCTCAGTGACGTGGCCCACGGCGTGTGGATTGGTGGTGTGGCCTGTGAGCCACTGCCTGACAGA
TACACGGTGTCGGAGGAGATCGTGTGTGTCACAGGGCCAGCCCCAGGACCACTCTCAGGTGTGGTGACCGTGAAC
GCCTCTAAGGAGGGCAAGTCCCGGGACCGCTTCTCCTACGTGCTGCCCCTGGTCCACTCCCTGGAGCCTACCATG
GGCCCCAAGGCCGGGGGCACCAGGATCACCATCCATGGGAATGACCTCCATGTAGGCTCCGAGCTCCAGGTCCTG
GTGAACGACACAGACCCCTGCACGGAGCTGATGCGCACAGATACCAGCATCGCCTGCACCATGCCTGAGGGGGCC
CTGCCGGCTCCGGTGCCTGTGTGTGTGCGCTTCGAGCGTCGGGGCTGCGTGCACGGCAACCTCACCTTCTGGTAC
ATGCAGAACCCGGTCATCACGGCCATCAGTCCCCGCCGCAGCCCTGTCAGTGGCGGCAGGACCATCACAGTGGCT
GGTGAGCGTTTCCACATGGTGCAGAATGTGTCCATGGCCGTCCACCACATTGGCCGGGAGCCCACGCTCTGCAAG
GTTCTCAACTCCACCCTCATCACCTGCCCGTCCCCCGGGGCCCTGAGCAACGCATCAGCGCCAGTGGACTTCTTC
```

FIGURE 13B

ATCAATGGGCGGGCCTACGCAGACGAGGTGGCTGTGGCTGAGGAGCTACTGGACCCCGAGGAGGCACAGCGGGGC
AGCAGGTTCCGCCTGGACTACCTCCCCAACCCACAGTTCTCTACGGCCAAGAGGGAGAAGTGGATCAAGCACCAC
CCCGGGGAGCCTCTCACCCTCGTTATCCACAAGGAGCAGGACAGCCTGGGGCTCCAGAGTCACGAGTACCGGGTC
AAGATAGGCCAAGTAAGCTGCGACATCCAGATTGTCTCTGACAGAATCATCCACTGCTCGGTCAACGAGTCCCTG
GGCGCGGCCGTGGGGCAGCTGCCCATCACAATCCAGGTAGGGAACTTCAACCAGACCATCGCCACACTGCAGCTG
GGGGGTAGCGAGACGGCCATCATCGTGTCCATCGTCATCTGCAGCGTCCTGCTGCTGCTCTCCGTGGTGGCCCTG
TTCGTCTTCTGTACCAAGAGCCGACGTGCTGAGCGTTACTGGCAGAAGACGCTGCTGCAGATGGAGGAGATGGAA
TCTCAGATCCGAGAGGAAATCCGCAAAGGCTTCGCTGAGCTGCAGACAGACATGACAGATCTCACCAAGGAGCTG
AACCGCAGCCAGGGCATCCCCTTCCTGGAGTATAAGCACTTCGTGACCCGCACCTTCTTCCCCAAGTGTTCCTCC
CTTTATGAAGAGCGTTACGTGCTGCCCTCCCAGACCCTCAACTCCCAGGGCAGCTCCCAGGCACAGGAAACCCAC
CCACTGCTGGGAGAGTGGAAGATTCCTGAGAGCTGCCGGCCCAACATGGAAGAGGGAATTAGCTTGTTCTCCTCA
CTACTCAACAACAAGCACTTCCTCATCGTCTTTGTCCACGCGCTGGAGCAGCAGAAGGACTTTGCGGTGCGCGAC
AGGTGCAGCCTGGCCTCGCTGCTGACCATCGCGCTGCACGGCAAGCTGGAGTACTACACCAGCATCATGAAGGAG
CTGCTGGTGGACCTCATTGACGCCTCGGCCGCCAAGAACCCCAAGCTCATGCTGCGGCGCACAGAGTCTGTGGTG
GAGAAGATGCTCACCAACTGGATGTCCATCTGCATGTACAGCTGTCTGCGGGAGACGGTGGGGGAGCCATTCTTC
CTGCTGCTGTGTGCCATCAAGCAGCAAATCAACAAGGGCTCCATCGACGCCATCACAGGCAAGGCCCGCTACACA
CTCAATGAGGAGTGGCTGCTGCGGGAGAACATCGAGGCCAAGCCCCGGAACCTGAACGTGTCCTTCCAGGGCTGT
GGCATGGACTCGCTGAGCGTGCGGGCCATGGACACCGACACGCTGACACAGGTCAAGGAGAAGATCCTGGAGGCC
TTCTGCAAGAATGTGCCCTACTCCCAGTGGCCGCGTGCAGAGGACGTCGACCTTGAGTGGTTCGCCTCCAGCACA
CAGAGCTACATCCTTCGGGACCTGGACGACACCTCAGTGGTGGAAGACGGCCGCAAGAAGCTTAACACGCTGGCC
CATTACAAGATCCCTGAAGGTGCCTCCCTGGCCATGAGTCTCATAGACAAGAAGGACAACACACTGGGCCGAGTG
AAAGACTTGGACACAGAGAAGTATTTCCATTTGGTGCTGCCTACGGACGAGCTGGCGGAGCCCAAGAAGTCTCAC
CGGCAGAGCCATCGCAAGAAGGTGCTCCCGGAAATCTACCTGACCCGCCTGCTCTCCACCAAGGGCACGTTGCAG
AAGTTTCTGGATGACCTGTTCAAGGCCATTCTGAGTATCCGTGAAGACAAGCCCCCACTGGCTGTCAAGTACTTT
TTCGACTTCCTGGAGGAGCAGGCTGAGAAGAGGGGAATCTCCGACCCCGACACCCTACACATCTGGAAGACCAAC
AGCCTTCCTCTCCGGTTCTGGGTGAACATCCTGAAGAACCCCCAGTTTGTCTTTGACATCGACAAGACAGACCAC
ATCGACGCCTGCCTTTCAGTCATCGCGCAGGCCTTCATCGACGCCTGCTCCATCTCTGACCTGCAGCTGGGCAAG
GATTCGCCAACCAACAAGCTCCTCTACGCCAAGGAGATTCCTGAGTACCGGAAGATCGTGCAGCGCTACTACAAG
CAGATCCAGGACATGACGCCGCTCAGCGAGCAAGAGATGAATGCCCATCTGGCCGAGGAGTCGAGGAAATACCAG
AATGAGTTCAACACCAATGTGGCCATGGCAGAGATTTATAAGTACGCCAAGAGGTATCGGCCGCAGATCATGGCC
GCGCTGGAGGCCAACCCCACGGCCCGGAGGACACAACTGCAGCACAAGTTTGAGCAGGTGGTGGCTTTGATGGAG
GACAACATCTACGAGTGCTACAGTGAGGCC**TGA**GACACATGGAGAGTTGGTCAGGCTGCTGCTGGGAGAAATGGA
CGCCCACTGGGCCTCAACTTGATCTTCTACCCCGTGCCTGTGACTCAGACTGGGAAATACTGAGCAGAGACGGCT
GGGGCGGGGGGCAGGAGGAGGGGCTGCTCTCTGAGACAGGGGCGCCCCCGCCTTGACCCCTGGGCACCTCCATCCC
CTCCCACCTGTCCCCAGATCAGTCTCTGGGATGGAGGCCAGAGAGCTGGTCAGGCTCCCCCATCTGCCCAGCACG
GCCTGCACTGTGCCCACCCACTTGCTCCACAACGTCCAGTTGGTCCTGCTGCCAAGAGCCCCGTGCATCCAGGCG
GCCAAGCACAAACTGGGGGAGAGGAGGCCGCCAGCCCGGAGGCTGCAGCCCAGAAACTCTACCTCATCCACACTG
GTGCAGGGAGCCCTCCTTGAACTGACCTTTGATTGGTTTCTGCTTCAACTACCAAAATGTTATCTCCACTTCCCC
CTCACCCGTAGAGGATCCTGGCCACAGACAGTTTCAAGTAGTGTCAGATTTTTGTTGCTTGGGCGGCTGTTGGTA
GAGTGGGCAGTGCCCGCGCCATGGGGTGCTCTGTGGGCTTCTCCAGGAGCAGGGAGGGTGGAGGGGAGGGATGGG
GGGCACAGGAGCTGGGAGCCCCGTCTCCAGGAAAAGGAGAGGGGTTAAGATGCACCGAGGCTGTAGCTGGGCTAC
TTGATCTTGCTGAAAGTGTTTCTAAAGATAGCACCACTTTTTTTTTTAAAGCTTTTATATATTAAAAAACGTATC
ATGC

FIGURE 14

PGCAARLSRARAPGPGAAGAGRKRLADPGPPPASRRLRAPGSRPRLAPCTRRAAQPAHARMAPRAAGGAPLSARA
AAASPPPFQTPPRCPVPLLLLLLLLGAARAGALEIQRRFPSPTPTNNFALDGAAGTVYLAAVNRLYQLSGANLSLE
AEAAVGPVPDSPLCHAPQLPQASCEHPRRLTDNYNKILQLDPGQGLVVVCGSIYQGFCQLRRRGNISAVAVRFPP
AAPPAEPVTVFPSMLNVAANHPNASTVGLVLPPAAGAGGSRLLVGATYTGYGSSFFPRNRSLEDHRFENTPEIAI
RSLDTRGDLAKLFTFDLNPSDDNILKIKQGAKEQHKLGFVSAFLHPSDPPPGAQSYAYLALNSEARAGDKESQAR
SLLARICLPHGAGGDAKKLTESYIQLGLQCAGGAGRGDLYSRLVSVFPARERLFAVFERPQGSPAARAAPAALCA
FRFADVRAAIRAARTACFVEPAPDVVAVLDSVVQGTGPACERKLNIQLQPEQLDCGAAHLQHPLSILQPLKATPV
FRAPGLTSVAVASVNNYTAVFLGTVNGRLLKINLNESMQVVSRRVVTVAYGEPVHHVMQFDPADSVYLYLMTSHQ
MARVKVAACNVHSTCGDCVGAADAYCGWCALETRCTLQQDCTNSSQQHFWTSASEGPSRCPAMTVLPSEIDVRQE
YPGMILQISGSLPSLSGMEMACDYGNNIRTVARVPGPAFGHQIAYCNLLPRDQFPPFPPNQDHVTVEMSVRVNGR
NIVKANFTIYDCSRTAQVYPHTACTSCLSAQWPCFWCSQQHSCVSNQSRCEASPNPTSPQDCPRTLLSPLAPVPT
GGSQNILVPLANTAFFQGAALECSFGLEEIFEAVWVNESVVRCDQVVLHTTRKSQVFPLSLQLKGRPARFLDSPE
PMTVMVYNCAMGSPDCSQCLGREDLGHLCMWSDGCRLRGPLQPMAGTCPAPEIRAIEPLSGPLDGGTLLTIRGRN
LGRRLSDVAHGVWIGGVACEPLPDRYTVSEEIVCVTGPAPGPLSGVVTVNASKEGKSRDRFSYVLPLVHSLEPTM
GPKAGGTRITIHGNDLHVGSELQVLVNDTDPCTELMRTDTSIACTMPEGALPAPVPVCVRFERRGCVHGNLTFWY
MQNPVITAISPRRSPVSGGRTITVAGERFHMVQNVSMAVHHIGREPTLCKVLNSTLITCPSPGALSNASAPVDFF
INGRAYADEVAVAEELLDPEEAQRGSRFRLDYLPNPQFSTAKREKWIKHHPGEPLTLVIHKEQDSLGLQSHEYRV
KIGQVSCDIQIVSDRIIHCSVNESLGAAVGQLPITIQVGNFNQTIATLQLGGSETAIIVSIVICSVLLLLSVVAL
FVFCTKSRRAERYWQKTLLQMEEMESQIREEIRKGFAELQTDMTDLTKELNRSQGIPFLEYKHFVTRTFFPKCSS
LYEERYVLPSQTLNSQGSSQAQETHPLLGEWKIPESCRPNMEEGISLFSSLLNNKHFLIVFVHALEQQKDFAVRD
RCSLASLLTIALHGKLEYYTSIMKELLVDLIDASAAKNPKLMLRRTESVVEKMLTNWMSICMYSCLRETVGEPFF
LLLCAIKQQINKGSIDAITGKARYTLNEEWLLRENIEAKPRNLNVSFQGCGMDSLSVRAMDTDTLTQVKEKILEA
FCKNVPYSQWPRAEDVDLEWFASSTQSYILRDLDDTSVVEDGRKKLNTLAHYKIPEGASLAMSLIDKKDNTLGRV
KDLDTEKYFHLVLPTDELAEPKKSHRQSHRKKVLPEIYLTRLLSTKGTLQKFLDDLFKAILSIREDKPPLAVKYF
FDFLEEQAEKRGISDPDTLHIWKTNSLPLRFWVNILKNPQFVFDIDKTDHIDACLSVIAQAFIDACSISDLQLGK
DSPTNKLLYAKEIPEYRKIVQRYYKQIQDMTPLSEQEMNAHLAEESRKYQNEFNTNVAMAEIYKYAKRYRPQIMA
ALEANPTARRTQLQHKFEQVVALMEDNIYECYSEA

FIGURE 15A

CCCTTTTTCCTCCCGTTTTGAAGAGACAATGCTACTTCAGTTTGGAGCACAAACATATGATCAGCACATGGAAAT
GTGGTAATTCGGATGCATTCGTGATTGCAACAGATTGAAGAAATTAGACCAGACAAAGAGTGTTTTTAGAGGAGA
GAGGAGGAGGAGGAGGCTGAGAGAGGGAGGGCGACGGGGGTGAGAAAGGGGAGGCCGCCTCTGAGCGGGACGCCG
GGACTCCCGCCGCTGCTAAATATATCCGTAGA**ATG**GAGAGGGACCGGATCTCAGCCTTGAAAAGATCTTTTGAGG
TCGAGGAGGTCGAGACACCCAACTCCACCCCACCCCGGAGGGTCCAGACTCCCCTACTCCGAGCCACTGTGGCCA
GCTCCACCCAGAAATTCCAGGACCTGGGCGTGAAGAACTCAGAACCCTCGGCCCGCCATGTGGACTCCCTAAGCC
AACGCTCCCCCAAGGCGTCCCTGCGGAGGGTGGAGCTCTCGGGCCCCAAGGCGGCCGAGCCGGTGTCCCGGCGCA
CTGAGCTGTCCATTGACATCTCGTCCAAGCAGGTGGAGAACGCCGGGGCCATCGGCCCGTCCCGGTTCGGGCTCA
AGAGGGCCGAGGTGTTGGGCCACAAGACGCCAGAACCGGCCCCTCGGAGGACGGAGATCACCATCGTCAAACCCC
AGGAGTCAGCCCACCGGAGGATGGAGCCCCCTGCCTCCAAGGTCCCCGAGGTGCCCACTGCCCCTGCCACCGACG
CAGCCCCCAAGAGGGTGGAGATCCAGATGCCCAAGCCTGCTGAGGCGCCCACCGCCCCCAGCCCAGCCCAGACCT
TGGAGAATTCAGAGCCTGCCCCTGTGTCTCAGCTGCAGAGCAGGCTGGAGCCCAAGCCCCAGCCCCCTGTGGCTG
AGGCTACACCCCGGAGCCAGGAGGCCACTGAGGCGGCTCCCAGCTGCGTTGGCGACATGGCCGACACCCCCAGAG
ATGCCGGGCTCAAGCAGGCGCCTGCATCACGGAACGAGAAGGCCCCGGTGGACTTCGGCTACGTGGGGATTGACT
CCATCCTGGAGCAGATGCGCCGGAAGGCCATGAAGCAGGGCTTCGAGTTCAACATCATGGTGGTCGGGCAGAGCG
GCTTGGGTAAATCCACCTTAATCAACACCCTCTTCAAATCCAAAATCAGCCGGAAGTCGGTGCAGCCCACCTCAG
AGGAGCGCATCCCCAAGACCATCGAGATCAAGTCCATCACGCACGATATTGAGGAGAAAGGCGTCCGGATGAAGC
TGACAGTGATTGACACACCAGGGTTCGGGGACCACATCAACAACGAGAACTGCTGGCAGCCCATCATGAAGTTCA
TCAATGACCAGTACGAGAAATACCTGCAGGAGGAGGTCAACATCAACCGCAAGAAGCGCATCCCGGACACCCGCG
TCCACTGCTGCCTCTACTTCATCCCCGCCACCGGCCACTCCCTCAGGCCCCTGGACATCGAGTTTATGAAACGCC
TGAGCAAGGTGGTCAACATCGTCCCTGTCATCGCCAAGGCGGACACACTCACCCTGGAGGAGAGGGTCCACTTCA
AACAGCGGATCACCGCAGACCTGCTGTCCAACGGCATCGACGTGTACCCCCAGAAGGAATTTGATGAGGACTCGG
AGGACCGGCTGGTGAACGAGAAGTTCCGGGAGATGATCCCATTTGCTGTGGTGGGCAGTGACCACGAGTACCAGG
TCAACGGCAAGAGGATCCTTGGGAGGAAGACCAAGTGGGGTACCATCGAAGTTGAAAACACCACACACTGTGAGT
TTGCCTACCTGCGGGACCTTCTCATCAGGACGCACATGCAGAACATCAAGGACATCACCAGCAGCATCCACTTCG
AGGCGTACCGTGTGAAGCGCCTCAACGAGGGCAGCAGCGCCATGGCCAACGGCGTGGAGGAGAAGGAGCCAGAAG
CCCCGGAGATG**TAG**ACGCCCCCTGCCCACCCCCGGGATCCTGCCCCCAAGTCATTTCCGTCCCCCCCCCAGGCCC
TCCCACCACCCCATTTTATTTTATATGATTTTCTCCATTTGTCATCGTTCCCCACCCCTTCGACATGCTGCCAGG
AAACAAGGGAAGGGGCCTCCCTCCGAGTGAGTCAGTGATGAGGCCGCGGCCTCCCCGAGGTTGTGGGGAGGCTGC
ACTGGAGCCACAGGCAGGGGTGAGAGCACCCACTGAATTGACATGACCCTCTGTCCCCAGGCCTGGCTCCCCGAG
GGCTCAGAAGAGCAGCTTCGGTGTGCAGATCATCCGTCGTGTGGGGTTCTCAGTGCCGGAGCTTGGGGTGGGGGC
CAGGCCTCGCACTTGCAGAGGAGCCCAGTGGGCTGCACGCTCCCCTCCATCCCCATCGGCCCTGTCCCCTGGAGT
GTGTCAGAGCCCAGGGGAGAATGCAGCCCACCAGGAGCACCTGGACCCCCTGCCCGCCACATGGTGTGGCCATCA
CTCAGCCCCTACCCCTGCCCTGCTCCTAAGGGTAGAAAACTCCAGGGTCCCCTGCCACCGACTGCCCAGCCACTC
CAAGCCCCCTGGCAGCTGCCCCTCCTGGAGCAGAAAGTGCCTTTATCTCAGCCATCCGCAGACTGCTGGCCAGAT
GCGGGGACAGGCTGGAATGAGGGAGGCGTCTTCATCTCCCTGCCATCCCCCTCTCACGCCACCCCCGCCCCCACC
GGGCTGCAGGTGCTGCTGATGCGCTGGGATCTGATTGAGGATAAAAAGGAAGGAGAGATGACCCCTACCCCCTCA
TCCCCCAGTTTTGAAAAGGTCTAAGCAAGTGAGTCTGGTGGAGGAGCTGAGGGAGGGAGCCATGGAAGGTGCCAG
AAGGAAGGTTGGCGGGGGCACGTGTGGGCCGTGGCTTGGGCTGGTCAGAGTGGCGTGAGCTGCCCGGCGCCTGCC
CTGCCCAAGTGACCAGGGAAGTGTGTGTGTGTCCATGTGTATGCGTGTCCGTCTGTCTGTCTAGTGTCTGGGTTT
GGCCCAAGACTGGGCTGTAGTTACATTAATGCCCAGCCAGCCACCCCTGCCACTCACCCCTCCTGGCCCAGGCCT
TGCTGACTCTCTGAGCTGGGGAGGTGGGAGGCCAGGCGAGCCTGACTCTGTTGATCTACCCGTGCCTGGGCCCCT
CCCCTCAGAGCCCATGGTAACGAACCCCTAGAAAGGAGAGAACGGGCGTCAGGGGTGCACAGTCCACAGCTGAAG
AGCAAGGTTTCGTGGCAGCACGGCCCGGCCCCTCACCCTCTGTCCCCACGAGGGGACCCATGGGGGCTGTCTTTG
CAGGGCACAGATGACCAAAGTCCCTTCCTGCTTCCTGTTACCTGTCTTGCTCCTGGGGAGAAAGAGGGGCCTGAT
GAGACTCCACTCAGGTGCACACATCACCAGGTGCATCTGCAGGCACCGGGCTGGCTGCTTGCAGCCAGGAGAAGG
TCAGCGAGAAGGAGTGTATGAGTGTGAGTGTGTGTGCATGGAAGTTGGGGCACTGGGCGTCTGACTCCCTCCCCA
CCCAAGAGAGGAAGGACCCCTCACCACCCCCACTGGCGAGACAGTTTACTTTGCCGACTTGCCATGTTTTTGCCA

FIGURE 15B

AAACCAAGATTTTGAAGGAAATGAGTGGCCAGCGCCAGGGCCCAGGCCATGTGGCCTGCCCAGCCTCAATGTCAC
TTGGCGGCGGGGTGGGGTGGGGGTGGGCAGCAGCATCCCAGCCTTGAGATGCTTCACTTTCCTTCTCTGTAACCA
GACTTTGAAAAATTGTTCGTTTCATCAGGCTCTGTTCCTCAATGGCCTTTTGCTACGTGCCTCCCGAGAAATTTG
TCTTTTTGTATAAATGACAAAGTGTTGAAAATGTATTTCCTGAAATAAATGTTTCAAATGCAGAAACCCAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 16

MERDRISALKRSFEVEEVETPNSTPPRRVQTPLLRATVASSTQKFQDLGVKNSEPSARHVDSLSQRSPKASLRRV
ELSGPKAAEPVSRRTELSIDISSKQVENAGAIGPSRFGLKRAEVLGHKTPEPAPRRTEITIVKPQESAHRRMEPP
ASKVPEVPTAPATDAAPKRVEIQMPKPAEAPTAPSPAQTLENSEPAPVSQLQSRLEPKPQPPVAEATPRSQEATE
AAPSCVGDMADTPRDAGLKQAPASRNEKAPVDFGYVGIDSILEQMRRKAMKQGFEFNIMVVGQSGLGKSTLINTL
FKSKISRKSVQPTSEERIPKTIEIKSITHDIEEKGVRMKLTVIDTPGFGDHINNENCWQPIMKFINDQYEKYLQE
EVNINRKKRIPDTRVHCCLYFIPATGHSLRPLDIEFMKRLSKVVNIVPVIAKADTLTLEERVHFKQRITADLLSN
GIDVYPQKEFDEDSEDRLVNEKFREMIPFAVVGSDHEYQVNGKRILGRKTKWGTIEVENTTHCEFAYLRDLLIRT
HMQNIKDITSSIHFEAYRVKRLNEGSSAMANGVEEKEPEAPEM

FIGURE 17

CCGCTTCCCCGTCTTGTACACCCCTAACTCCTGAGGCTCCTCCGAATCACGCGAGTGGAAGCGGAGAAGCTCAAG
TGGCCGCC**ATG**TCAGAGGCTTATTTCCGAGTGGAGTCGGGTGCGCTGGGGCCTGAGGAGAACTTTCTTTCTTTGG
ACGACATCCTGATGTCCCACGAGAAGCTGCCGGTGCGCACGGAGACCGCCATGCCTCGCCTTGGCGCTTTCTTCC
TGGAGCGGAGCGCAGGCGCCGAGACTGACAACGCGGTCCCACAGGGTTCCAAGCTTGAACTACCCTTGTGGCTGG
CAAAAGGACTTTTTGACAACAAGCGACGGATCCTTTCTGTGGAACTCCCCAAGATCTACCAAGAGGGTTGGAGGA
CTGTGTTCAGTGCAGATCCCAATGTGGTGGACCTCCACAAAATGGGGCCCCATTTCTACGGGTTTGGCTCCCAGC
TCCTGCATTTTGACAGTCCCGAGAATGCAGACATTTCCCAGTCTCTGCTGCAGACTTTTATCGGACGTTTTCGCC
GCATCATGGACTCCTCACAGAATGCTTACAACGAAGACACTTCAGCCCTGGTAGCCAGGCTAGACGAGATGGAGA
GGGGCTTATTTCAAACAGGGCAGAAAGGACTGAATGACTTTCAGTGTTGGGAGAAGGGGCAGGCTTCTCAGATCA
CAGCTTCCAACCTCGTTCAGAATTACAAGAAGAGAAAATTCACTGATATGGAAGAC**TGA**AAGCCGGAAGAACACA
GAATGGCTCCTCACAGACGTATCCCTCCGTGTGTCCTTGATAGGAGCTGGTTGACCTTGTACAGAACCAGAATCC
TGTCCCATTTCATGGCTTATTTCCTGTGGCCATAGAGAATTATAGGGAACTGGACATGCTGGAGGATGTGGGTGT
CCCTGGCTCTGTGAGTCTTCCAGGACCGTCCCACCCTGCTGACCCACAGCCCAGGCCCTTTAACCCAAGAACCCA
TGGCCAAGGAGAAATCAAAGTCCTTCCTAAATAAGAATCACTGCCATATAATATATCACAGTAGAGTTGCAACTG
AGATTCCTTGTGTCTGGGAGTTTGGACAGCTTCAGATGTACAGTTTCACTAGCCACAAAGCACAGGTACAAACTG
GGTCATCGCCTGTTCACAAAATGCTCTCTTGATCTTATTTGCCTCATCTTCCTCATGGTTGTACAGAGGATAGCA
CCCCACCATGCCAGCCTGACTTGGAGATATCTCCTGCTGCCTGCCTGCAGGGAGTTACCCCAGTTTCCAAAAACA
GTCGCCCAGATAAAGGAGGAAAAGGGAAAGGCAGACGAATGGCATGGCTTTTACTAAAGAAAAGATGTTGGCCTC
ATACTCTATACTCAGGGCTTAATGAACTGGAATCTGCATAACTCAGCAGTCAACCCAGAAGGGAAATGGTTAAAC
TGAGCTTGTTATTGCCTCGGAGAGCCTAAGAGCACCCGCACACTTAATTCTACTCCCTGTCTAGAAAAGCTGTCA
GGGAGTCGTTTGGAATTGCAATGTAGTTATTAAGGGCTGTTAACCAGCCTGCATTACATCTGGAAGTCAGGACTT
GGGTGCTGACTATGAAGGGCCCTGTTTTCAAAATCTAACATTGCAAGTGTAAATGGGCAAGAAGCCTCCGTTGTG
CTTTTTTTTTCCTCTTCAGTAACTTTTGCAACATTATTGCATAGAAGATCCCTGACCATTTACTAGGAACCTGGT
TAAGCAAGCACTAATCTCTTTTCCTGGAGATCAAGGATGCAACCTCAGGTTGAGAAAGAAACAGGGTTCCCTGGG
CCCATTAGACTGTTTGCAGGGCATCACTGCTTCCCCCTGACACCTCACAACTAGCAAAAATTGTCTTTGTCTTTG
GAAATTATAGAGGGATTTGGGTATCCAGATTGTGCAGATGCAAACTTAGGCTGTCTTGATGCAAACTTAGAACCA
CAGAAATGCTTTTAAAATGCCTGTTTTAAGATGGAATTGTTGTTTTTATAATTTGATTTTAGTGCTAAATAAATG
ATTGGCTTTGTACATGAATATGTTCTGTACAAGTGCTCTTTCACTAGTACTACAGATAATCAAAGCTATCAGAAT
TGTGTCTTTGATCATATTTGACGGTAATACACAAATAAATCCATGTTTAGCAAAAAAAAAAAAAAAAAAAAAAAA
A

FIGURE 18

MSEAYFRVESGALGPEENFLSLDDILMSHEKLPVRTETAMPRLGAFFLERSAGAETDNAVPQGSKLELPLWLAKG
LFDNKRRILSVELPKIYQEGWRTVFSADPNVVDLHKMGPHFYGFGSQLLHFDSPENADISQSLLQTFIGRFRRIM
DSSQNAYNEDTSALVARLDEMERGLFQTGQKGLNDFQCWEKGQASQITASNLVQNYKKRKFTDMED

FIGURE 19

GTTTACGTCTCGCTCCGGGGCGGAAAGTGGGTCAGGGCCGGGCTGGCGGAGCGCGCAGCGGGGGCTGCAGATTCT
TTCCACCATGGCCAGACGCCCCCGGAACAGCAGGGCCTGGCACTTCGTCCTGAGTGCAGCCCGCCGAGACGCAGA
TGCCCGGGCCGTGGCTCTAGCGAGGCCTCCTTCTGTAGCAGCCTGCACTCGGCCCACCGGGGCAGGGACTGCCGC
TGCGGAGAGGAAGACGAGTGTGAGCGTGGGGCCCAGCCCCTGCTGGGACTGCACTGCGGGCGGGCCTGGGGGTGG
GCAGGGCAGAGCCCCATGGAGCTCTCAGGGCTGCCCCAGCCTGGGCCTCTCTTGCAGATTTCGACTGGGTCTGGG
ATGACTTAAATAAGTCATCAGCCACCCTGCTGAGCTGTGACAACCGTAAGGTCAGCTTCCAC**ATG**GAGTACAGCT
GCGGCACAGCGGCCATCCGGGGCACCAAGGAGCTGGGGGAGGGCCAGCACTTCTGGGAGATCAAGATGACCTCTC
CCGTCTACGGCACACTCACCTTTTTCAAGAACAGGAAGTGTATAGGTGTGGCAGCCACCAAGCTGCAGAACAAGA
GATTCTACCCGATGGTGTGCTCCACGGCGGCCCGGAGCAGCATGAAGGTCACCCGCTCCTGTGCCAGCGCCACTT
CCCTCCAGTACCTGTGCTGCCACCGCCTGCGCCAGCTGCGGCCAGACTCGGGAGACACGCTGGAGGGTCTGCCGC
TGCCGCCGGGCCTCAAGCAGGTGCTACACAACAAGCTGGGCTGGGTCCTGAGCATGAGTTGCAGCCGCCGCAAGG
CTCCAGTGTCCGATCCCCAGGCAGCGACCTCCGCCCACCCCAGCAGTCGCGAGCCTCGGCCCTGCCAGAGGAAGC
GCTGCCGCCGGACC**TGA**CTGACTTCCCAGTGGAACTGCCTTCTTGGGCTGGGGCAGCCCCTTTCCTCTGTCCCTT
CTTTCTCTGTCCCTTCCTTCCAGCCACACTCCAGGGCGGAGTTGGATGAGGCCCGTCCGGAGGGAGCCATCTCTT
GCTCCCGAGGCTGGGACAGTCCTTTCTGTGGGGGCTCTAGGGCCCCTCTGCTGCTGTGCTGGGTGGGGAAGCGGC
TGCCCTGAGCCCCAGGTCTTGTGGGAGGCTGCGAGGACGAGAGCCTGGCTGGAGCCCGCGTTGCTGTTCCTAGAT
GGTGGGCATCGGGACGTCGGATGTGGACCTGGACAAATACCGCCACACGTTCTGCAGCCTGCTGGGCAGGGATGA
GGACAGCTGGGGCCTCTCCTACACGGGTGCGTGAGGCCCAGGGTGGGGCGGGGCCGAGCCTGGAGCTCCCGGGCT
CACTGCGACCCTGGCTGCCCCCAGGCCTCCTCCACCACAAGGGCGACAAGACCAGCTTCTCGTCGCGGTTCGGCC
AGGGCTCCATCATTGGCGTGCACCTGGACACCTGGCACGGCACACTCACCTTTTTCCTAACTTGCTCTGCATGCT
GTCAGCGGCTGCCCCGCCGTCATAGACTTAAAGGACTGCAATAAATGTAGAGTTGATGTCTAACACCC

FIGURE 20

MEYSCGTAAIRGTKELGEGQHFWEIKMTSPVYGTLTFFKNRKCIGVAATKLQNKRFYPMVCSTAARSSMKVTRSC
ASATSLQYLCCHRLRQLRPDSGDTLEGLPLPPGLKQVLHNKLGWVLSMSCSRRKAPVSDPQAATSAHPSSREPRP
CQRKRCRRT

FIGURE 21

AGAAATCAACTGCTTAGCCGGGTTGTTAGGAGGATCTGATGAGACTAGGATGTGAGTTGAAACTGCTGTGCCAGG
CACACCTGTGTGGGTCTCACTTGTGCCAGGCATACCTGCGTGGGTCTCACCTGTGTAGGTCTCACCTGTGCCAGG
TGTACCTGTGTGGGTCTTACCTGTGCAGGTCTCCTGATGCAGGTCTCACCTGTGCCGAGTGTACCTACCTGTGCG
GGTCTCACCTGTGTCAGGCGTACGTGTAGGGGTCTCACCTGTGAACGTCTCACCTGTGCCAGGTGTATACCTGTG
TGGCTCTCACTTGTGTGGGTCTGGTATGTGACAAAGGCCTGGGAATTGGCAGCTGTCATCTGCCAGGAGCAGACC
CTGAGCCAAGTTCCCTGTGCCTTAGGCTCATTTCATGCCCTCAGCTCTGGGAGGCCAATCCCTTTACTGCCACAT
TTTATAAATGGAAGACTGAGGTTAAGCAGTGGGCCCAGGGCCATAGAACAGCTGAGCTGTGGAGCTGGACATCGA
CCTTGGGCAGGTGCTGCCAGGGGCCTGAGCCCAGGCCCTCCACTCCCGCATCCTCTGATGACCCATCCTGGGTGA
GTGGAGGCATCTGCCCGCGCCAGTCAGGCCCAGTGGTG**ATG**GCCCCCATGCCCACAGGACAGAAGCTGCTGGACT
CACTGGCAGAGACCTGGGACTTCTTCTTCAGTGACGTGCTGCCCATGCTGCAGGCCATCTTCTACCCGGTGCAGG
GCAAGGAGCCATCGGTGCGCCAGCTGGCCCTGCTGCACTTCCGGAATGCCATCACCCTCAGTGTGAAGCTAGAGG
ATGCGCTGGCCCGGGCCCATGCCCGCGTGCCCCCTGCCATCGTGCAGATGCTGCTGGTGCTGCAGGGGGTACATG
AGTCCAGGGGCGTGACTGAGGACTACCTGCGCCTGGAGACGCTGGTCCAGAAGGTGGTGTCGCCATACCTGGGCA
CCTACGGCCTCCACTCCAGCGAGGGGCCCTTCACCCATTCCTGCATCCTGGAAAAGCGCCTCCTCCGCCGCTCCC
GCTCGGGGGACGTGCTGGCCAAGAACCCTGTGGTGCGCTCCAAGAGCTACAACACGCCTCTGCTGAACCCCGTGC
AGGAGCACGAGGCGGAGGGCGCGGCGGCCGGCGGTACCAGCATCCGCTGGCACTCTGTGTCGGAGATGACGTCCT
GCCCCGAGCCTCAGGGCTTCTCCGACCCGCCCGGCCAGGGCCCCACCGGGACCTTCAGGTCCTCCCCGGCGCCCC
ACTCAGGGCCCTGCCCCAGCAGACTGTACCCCACGACCCAGCCCCCTGAGCAGGGCTTGGATCCCACCCGCAGCT
CCCTGCCCCGCTCCAGCCCGGAGAACCTGGTGGACCAGATCCTGGAGTCCGTGGACTCGGATTCTGAAGGGATTT
TCATTGACTTTGGCCGGGGCCGGGGCTCTGGCATGTCCGACTTGGAGGGCTCTGGGGGCCGGCAGAGTGTCGTG**T**
GAGGCCTCACAGCTGGCCTTGAGTTTTTACTGACACGTCCCTGTGTGCGGGGGTGTCCATGTGGCGTGTGTGTGA
GTGAGACTTTTTTACTGCGTCCCGTCCCGCCAGCCCTGTCGGCCTCGTCACTGGCCTTGGTCACTTTGTATTTCT
GTCTTGGTTGGAAATACCATCAGCCTTCCTTGCTCGGCCCAGGTCTGTTTCAGGCATCTGAGTCAGCGTTTACCC
AGGGGCCGGGCCAGAGACGGGGGCCGGCCGCTCGCTCCCACGCTCCTCCTGCCCCAGCCCTCTGGTGTCCACACC
TGCCCACAGAGAATGTAAACCCAGTGGGCTCTGCCCACGCCGGGCCCCAAAGTGACCAGACTCCAGCACACCTGT
CTCCTCCTGCCTGGGGTGGCCATGGGGATGGAAGGGGGTGGAATAAAACCTGTCAACCTGAAAAAAAAAAAAAAA
AAAAAA

FIGURE 22

MAPMPTGQKLLDSLAETWDFFFSDVLPMLQAIFYPVQGKEPSVRQLALLHFRNAITLSVKLEDALARAHARVPPA
IVQMLLVLQGVHESRGVTEDYLRLETLVQKVVSPYLGTYGLHSSEGPFTHSCILEKRLLRRSRSGDVLAKNPVVR
SKSYNTPLLNPVQEHEAEGAAAGGTSIRWHSVSEMTSCPEPQGFSDPPGQGPTGTFRSSPAPHSGPCPSRLYPTT
QPPEQGLDPTRSSLPRSSPENLVDQILESVDSDSEGIFIDFGRGRGSGMSDLEGSGGRQSVV

FIGURE 23

GTTGCCGCTGCGCACCTGGCTCAGGTGAGCTGCCCCGCCCCCGCCCGGCGCGAGCCCCAGGTCCTGGCAGCAGCC
CCTGACCTGTCCAGGTGCCCTGTCCAGCTGACTGCAAGGACAGAGAGGAGTCCTGCCCAGCTCTTGGATCAGTCT
GCTGGCCGAGGAGCCCGGTGGAGCCAGGGGTGACCCTGGAGCCCAGCCTGCCCCGAGGAGGCCCCGGCTCAGAGC
C**ATG**CCAGGTGTCTGTGATAGGGCCCCTGACTTCCTCTCCCCGTCTGAAGACCAGGTGCTGAGGCCTGCCTTGGG
CAGCTCAGTGGCTCTGAACTGCACGGCTTGGGTAGTCTCTGGGCCCCACTGCTCCCTGCCTTCAGTCCAGTGGCT
GAAAGACGGGCTTCCATTGGGAATTGGGGGCCACTACAGCCTCCACGAGTACTCCTGGGTCAAGGCCAACCTGTC
AGAGGTGCTTGTGTCCAGTGTCCTGGGGGTCAACGTGACCAGCACTGAAGTCTATGGGGCCTTCACCTGCTCCAT
CCAGAACATCAGCTTCTCCTCCTTCACTCTTCAGAGAGCTGGCCCTACAAGCCACGTGGCTGCGGTGCTGGCCTC
CCTCCTGGTCCTGCTGGCCCTGCTGCTGGCCGCCCTGCTCTATGTCAAGTGCCGTCTCAACGTGCTGCTCTGGTA
CCAGGACGCGTATGGGGGAGGTGGAGATAAACGACGGGAAGCTCTACGACGCCTACGTCTCCTACAGCGACTGCCC
CGAGGACCGCAAGTTCGTGAACTTCATCCTAAAGCCGCAGCTGGAGCGGCGTCGGGGCTACAAGCTCTTCCTGGA
CGACCGCGACCTCCTGCCGCGCGCTGAGCCCTCCGCCGACCTCTTGGTGAACCTGAGCCGCTGCCGACGCCTCAT
CGTGGTGCTTTCGGACGCCTTCCTGAGCCGGGCCTGGTGCAGCCACAGCTTCCGGGAGGGCCTGTGCCGGCTGCT
GGAGCTCACCCGCAGACCCATCTTCATCACCTTCGAGGGCCAGAGGCGCGACCCCGCGCACCCGGCGCTCCGCCT
GCTGCGCCAGCACCGCCACCTGGTGACCTTGCTGCTCTGGAGGCCCGGCTCCGTGACTCCTTCCTCCGATTTTTG
GAAAGAAGTGCAGCTGGCGCTGCCGCGGAAGGTGCGGTACAGGCCGGTGGAAGGAGACCCCCAGACGCAGCTGCA
GGACGACAAGGACCCCATGCTGATTCTTCGAGGCCGAGTCCCTGAGGGCCGGGCCCTGGACTCAGAGGTGGACCC
GGACCCTGAGGGCGACCTGGGTGTCCGGGGGCCTGTTTTTGGAGAGCCATCAGCTCCACCGCACACCAGTGGGGT
CTCGCTGGGAGAGAGCCGGAGCAGCGAAGTGGACGTCTCGGATCTCGGCTCGCGAAACTACAGTGCCCGCACAGA
CTTCTACTGCCTGGTGTCCAAGGATGATATG**TAG**CTCCCACCCCAGAGTGCAGGATCATAGGGACAGCGGGGGCC
AGGGCAGCGGCGTCGCTCCTCTGCTCAACAGGACCACAACCCCTGCCAGCAGCCCTGGGACCCTGCCAGCAGCCC
TGGGAAAAGGCTGTGGCCTCAGGGCGCCTCCCAGTGCCAGAAAATAAAGTCCTTTTGGATTCTGAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 24

MPGVCDRAPDFLSPSEDQVLRPALGSSVALNCTAWVVSGPHCSLPSVQWLKDGLPLGIGGHYSLHEYSWVKANLS
EVLVSSVLGVNVTSTEVYGAFTCSIQNISFSSFTLQRAGPTSHVAAVLASLLVLLALLLAALLYVKCRLNVLLWY
QDAYGEVEINDGKLYDAYVSYSDCPEDRKFVNFILKPQLERRRGYKLFLDDRDLLPRAEPSADLLVNLSRCRRLI
VVLSDAFLSRAWCSHSFREGLCRLLELTRRPIFITFEGQRRDPAHPALRLLRQHRHLVTLLLWRPGSVTPSSDFW
KEVQLALPRKVRYRPVEGDPQTQLQDDKDPMLILRGRVPEGRALDSEVDPDPEGDLGVRGPVFGEPSAPPHTSGV
SLGESRSSEVDVSDLGSRNYSARTDFYCLVSKDDM

FIGURE 25

GGCACGAGGGGAGCGCTTGTTTGCTGCCTCGTACTCCTCCATTTATCCGCC**ATG**ATAAGTGCCAGCCGAGCTGCA
GCAGCCCGTCTCGTGGGCGCCGCAGCCTCCCGGGGCCCTACGGCCGCCCGCCACCAGGATAGCTGGAATGGCCTT
AGTCATGAGGCTTTTAGACTTGTTTCAAGGCGGGATTATGCATCAGAAGCAATCAAGGGAGCAGTTGTTGGTATT
GATTTGGGTACTACCAACTCCTGCGTGGCAGTTATGGAAGGTAAACGAGCAAAGGTGCTGGAGAATGCCGAAGGT
GCCAGAACCACCCCTTCAGTTGTGGCCTTTACAGCAGATGGTGAGCGACTTGTTGGAATGCCGGCCAAGCGACAG
GCTGTCACCAACCCAAACAATACATTTTATGCTACCAAGCGTCTCATTGGCCGGCGATATGATGATCCTGAAGTA
CAGAAAGACATTAAAAATGTTCCCTTTAAAATTGTCCGTGCCTCCAATGGTGATGCCTGGGTTGAGGCTCATGGG
AAATTGTATTCTCCGAGTCAGATTGGAGCATTTGTGTTGATGAAGATGAAAGAGACTGCAGAAAATTACTTGGGG
CGCACAGCAAAAAATGCTGTGATCACAGTCCCAGCTTATTTCAATGACTCGCAGAGACAGGCCACTAAAGATGCT
GGCCAGATATCTGGACTGAATGTGCTTCGGGTGATTAATGAGCCCACAGCTGCTGCTCTTGCCTATGGTCTAGAC
AAATCAGAAGACAAAGTCATTGCTGTATATGATTAGGTGGTGGAACTTTTGATATTTCTATCCTGGAAATTCAG
AAAGGAGTATTTGAGGTGAAATCCACAAATGGGGATACCTTCTTAGGTGGGGAAGACTTTGACCAGGCCTTGCTA
CGGCACATTGTGAAGGAGTTCAAGAGAGAGACAGGGGTTGATTTGACTAAAGACAACATGGCACTTCAGAGGGTA
CGGGAAGCTGCTGAAAAGGCTAAGTGTGAACTCTCCTCATCTGTGCAGACTGACATCAATTTGCCCTATCTTACA
ATGGATTCTTCTGGACCCAAGCATTTGAATATGAAGTTGACCCGTGCTCAATTTGAAGGGATTGTCACTGATCTA
ATCAGAAGGACTATCGCTCCATGCCAAAAAGCTATGCAAGATGCAGAAGTCAGCAAGAGTGACATAGGAGAAGTG
ATTCTTGTGGGTGGCATGACTAGGATGCCCAAGGTTCAGCAGACTGTACAGGATCTTTTTGGCAGAGCCCCAAGT
AAAGCTGTCAATCCTGATGAGGCTGTGGCCATTGGAGCTGCCATTCAGGGAGGTGTGTTGGCCGGCGATGTCACG
GATGTGCTGCTCCTTGATGTCACTCCCCTGTCTCTGGGTATTGAAACTCTAGGAGGTGTCTTTACCAAACTTATT
AATAGGAATACCACTATTCCAACCAAGAAGAGCCAGGTATTCTCTACTGCCGCTGATGGTCAAACGCAAGTGGAA
ATTAAAGTGTGTCAGGGTGAAAGAGAGATGGCTGGAGACAACAAACTCCTTGGACAGTTTACTTTGATTGGAATT
CCACCAGCCCCTCGTGGAGTTCCTCAGATTGAAGTTACATTTGACATTGATGCCAATGGGATAGTACATGTTTCT
GCTAAAGATAAAGGCACAGGACGTGAGCAGCAGATTGTAATCCAGTCTTCTGGTGGATTAAGCAAAGATGATATT
GAAAATATGGTTAAAAATGCAGAGAAATATGCTGAAGAAGACCGGCGAAAGAAGGAACGAGTTGAAGCAGTTAAT
ATGGCTGAAGGAATCATTCACGACACAGAAACCAAGATGGAAGAATTCAAGGACCAATTACCTGCTGATGAGTGC
AACAAGCTGAAAGAAGAGATTTCCAAAATGAGGGAGCTCCTGGCTAGAAAAGACAGCGAAACAGGAGAAAATATT
AGACAGGCAGCATCCTCTCTTCAGCAGGCATCATTGAAGCTGTTCGAAATGGCATACAAAAGATGGCATCTGAG
CGAGAAGGCTCTGGAAGTTCTGGCACTGGGGAACAAAAGGAAGATCAAAGGAGGAAAAACAG**TAA**TAATAGCAG
AAATTTTGAAGCCAGAAGGACAACATATGAAGCTTAGGAGTGAAGAGACTTCCTGAGCAGAAATGGGCGAACTTC
AGTCTTTTTACTGTGTTTTTGCAGTATTCTATATATAATTTCCTTAATTTGTAAATTTAGTGACCATTAGCTAGT
GATCATTTAATGGACAGTGATTCTAACAGTATAAAGTTCACAATATTCTATGTCCCTAGCCTGTCATTTTTCAGC
TGCATGTAAAAGGAGGTAGGATGAATTGATCATTATAAAGATTTAACTATTTTATGCTGAAGTGACCATATTTTC
AAGGGGTGAAACCATCTCGCACACAGCAATGAAGGTAGTCATCCATAGACTTGAAATGAGACCACATATGGGGAT
GAGATCCTTCTAGTTAGCCTAGTACTGCTGTACTGGCCTGTATGTACATGGGGTCCTTCAACTGAGGCCTTGCAA
GTCAAGCTGGCTGTGCCATGTTTGTAGATGGGGCAGAGGAATCTAGAACAATGGGAAACTTAGCTATTTATATTA
GGTACAGCTATTAAAACAAGGTAGGAATGAGGCTAGACCTTTAACTTCCCTAAGGCATACTTTTCTAGCTACCTT
CTGCCCTGTGTCTGGCACCTACATCCTTGATGATTGTTCTCTTACCCATTCTGGAATTTTTTTTTTTTAAATA
AATACAGAAGCATCTTGAAAAAAAAAAAAAAAAAAA

FIGURE 26

MISASRAAAARLVGAAASRGPTAARHQDSWNGLSHEAFRLVSRRDYASEAIKGAVVGIDLGTTNSCVAVMEGKRA
KVLENAEGARTTPSVVAFTADGERLVGMPAKRQAVTNPNNTFYATKRLIGRRYDDPEVQKDIKNVPFKIVRASNG
DAWVEAHGKLYSPSQIGAFVLMKMKETAENYLGRTAKNAVITVPAYFNDSQRQATKDAGQISGLNVLRVINEPTA
AALAYGLDKSEDKVIAVYDLGGGTFDISILEIQKGVFEVKSTNGDTFLGGEDFDQALLRHIVKEFKRETGVDLTK
DNMALQRVREAAEKAKCELSSSVQTDINLPYLTMDSSGPKHLNMKLTRAQFEGIVTDLIRRTIAPCQKAMQDAEV
SKSDIGEVILVGGMTRMPKVQQTVQDLFGRAPSKAVNPDEAVAIGAAIQGGVLAGDVTDVLLLDVTPLSLGIETL
GGVFTKLINRNTTIPTKKSQVFSTAADGQTQVEIKVCQGEREMAGDNKLLGQFTLIGIPPAPRGVPQIEVTFDID
ANGIVHVSAKDKGTGREQQIVIQSSGGLSKDDIENMVKNAEKYAEEDRRKKERVEAVNMAEGIIHDTETKMEEFK
DQLPADECNKLKEEISKMRELLARKDSETGENIRQAASSLQQASLKLFEMAYKKMASEREGSGSSGTGEQKEDQK
EEKQ

FIGURE 27

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GGCACGAGGGGAGCGCTTGTTTGCTGCCTCGTACTCCTCCATTTATCCGCCATGATAAGTGCCAGCCGAGCTGCA
GCAGCCCGTCTCGTGGGCGCCGCAGCCTCCCGGGGCCCTACGGCCGCCCGCCACCAGGATAGCTGGAATGGCCTT
AGTCATGAGGCTTTTAGACTTGTTTCAAGGCGGGATTATGCATCAGAAGCAATCAAGGGAGCAGTTGTTGGTATT
GATTTGGGTACTACCAACTCCTGCGTGGCAGTTATGGAAGGTAAACGAGCAAAGGTGCTGGAGAATGCCGAAGGT
GCCAGAACCACCCCTTCAGTTGTGGCCTTTACAGCAGATGGTGAGCGACTTGTTGGAATGCCGGCCAAGCGACAG
GCTGTCACCAACCCAAACAATACATTTTATGCTACCAAGCGTCTCATTGGCCGGCGATATGATGATCCTGAAGTA
CAGAAAGACATTAAAAATGTTCCCTTTAAAATTGTCCGTGCCTCCAATGGTGATGCCTGGGTTGAGGCTCATGGG
AAATTGTATTCTCCGAGTCAGATTGGAGCATTTGTGTTGATGAAGATGAAAGAGACTGCAGAAAATTACTTGGGG
CGCACAGCAAAAAATGCTGTGATCACAGTCCCAGCTTATTTCAATGACTCGCAGAGACAGGCCACTAAAGATGCT
GGCCAGATATCTGGACTGAATGTGCTTCGGGTGATTAATGAGCCCACAGCTGCTGCTCTTGCCTATGGTCTAGAC
AAATCAGAAGACAAAGTCATTGCTGTATATGATTAGGTGGTGGAACTTTTGATATTTCTATCCTGGAAATTCAG
AAAGGAGTATTTGAGGTGAAATCCACAAATGGGGATACCTTCTTAGGTGGGGAAGACTTTGACCAGGCCTTGCTA
CGGCACATTGTGAAGGAGTTCAAGAGAGAGACAGGGGTTGATTTGACTAAAGACAACATGGCACTTCAGAGGGTA
CGGGAAGCTGCTGAAAAGGCTAAGTGTGAACTCTCCTCATCTGTGCAGACTGACATCAATTTGCCCTATCTTACA
ATGGATTCTTCTGGACCCAAGCATTTGAATATGAAGTTGACCCGTGCTCAATTTGAAGGGATTGTCACTGATCTA
ATCAGAAGGACTATCGCTCCATGCCAAAAAGCTATGCAAGATGCAGAAGTCAGCAAGAGTGACATAGGAGAAGTG
ATTCTTGTGGGTGGCATGACTAGGATGCCCAAGGTTCAGCAGACTGTACAGGATCTTTTTGGCAGAGCCCCAAGT
AAAGCTGTCAATCCTGATGAGGCTGTGGCCATTGGAGCTGCCATTCAGGGAGGTGTGTTGGCCGGCGATGTCACG
GATGTGCTGCTCCTTGATGTCACTCCCCTGTCTCTGGGTATTGAAACTCTAGGAGGTGTCTTTACCAAACTTATT
AATAGGAATACCACTATTCCAACCAAGAAGAGCCAGGTATTCTCTACTGCCGCTGATGGTCAAACGCAAGTGGAA
ATTAAAGTGTGTCAGGGTGAAAGAGAGATGGCTGGAGACAACAAACTCCTTGGACAGTTTACTTTGATTGGAATT
CCACCAGCCCCTCGTGGAGTTCCTCAGATTGAAGTTACATTTGACATTGATGCCAATGGGATAGTACATGTTTCT
GCTAAAGATAAAGGCACAGGACGTGAGCAGCAGATTGTAATCCAGTCTTCTGGTGGATTAAGCAAAGATGATATT
GAAAATATGGTTAAAAATGCAGAGAAATATGCTGAAGAAGACCGGCGAAAGAAGGAACGAGTTGAAGCAGTTAAT
ATGGCTGAAGGAATCATTCACGACACAGAAACCAAGATGGAAGAATTCAAGGACCAATTACCTGCTGATGAGTGC
AACAAGCTGAAAGAAGAGATTTCCAAAATGAGGGAGCTCCTGGCTAGAAAAGACAGCGAAACAGGAGAAAATATT
AGACAGGCAGCATCCTCTCTTCAGCAGGCATCATTGAAGCTGTTCGAAATGGCATACAAAAAGATGGCATCTGAG
CGAGAAGGCTCTGGAAGTTCTGGCACTGGGGAACAAAAGGAAGATCAAAAGGAGGAAAAACAGTAATAATAGCAG
AAATTTTGAAGCCAGAAGGACAACATATGAAGCTTAGGAGTGAAGAGACTTCCTGAGCAGAAATGGGCGAACTTC
AGTCTTTTTACTGTGTTTTTGCAGTATTCTATATATAATTTCCTTAATTTGTAAATTTAGTGACCATTAGCTAGT
GATCATTTAATGGACAGTGATTCTAACAGTATAAAGTTCACAATATTCTATGTCCCTAGCCTGTCATTTTTCAGC
TGCATGTAAAAGGAGGTAGGATGAATTGATCATTATAAAGATTTAACTATTTTATGCTGAAGTGACCATATTTTC
AAGGGGTGAAACCATCTCGCACACAGCAATGAAGGTAGTCATCCATAGACTTGAAATGAGACCACATATGGGGAT
GAGATCCTTCTAGTTAGCCTAGTACTGCTGTACTGGCCTGTATGTACATGGGGTCCTTCAACTGAGGCCTTGCAA
GTCAAGCTGGCTGTGCCATGTTTGTAGATGGGGCAGAGGAATCTAGAACAATGGGAAACTTAGCTATTTATATTA
GGTACAGCTATTAAAACAAGGTAGGAATGAGGCTAGACCTTTAACTTCCCTAAGGCATACTTTTCTAGCTACCTT
CTGCCCTGTGTCTGGCACCTACATCCTTGATGATTGTTCTCTTACCCATTCTGGAATTTTTTTTTTTTTTAAATA
AATACAGAAGCATCTTGAAAAAAAAAAAAAAAAAAAA
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FIGURE 28

MISASRAAAARLVGAAASRGPTAARHQDSWNGLSHEAFRLVSRRDYASEAIKGAVVGIDLGTTNSCVAVMEGKRA
KVLENAEGARTTPSVVAFTADGERLVGMPAKRQAVTNPNNTFYATKRLIGRRYDDPEVQKDIKNVPFKIVRASNG
DAWVEAHGKLYSPSQIGAFVLMKMKETAENYLGRTAKNAVITVPAYFNDSQRQATKDAGQISGLNVLRVINEPTA
AALAYGLDKSEDKVIAVYDLGGGTFDISILEIQKGVFEVKSTNGDTFLGGEDFDQALLRHIVKEFKRETGVDLTK
DNMALQRVREAAEKAKCELSSSVQTDINLPYLTMDSSGPKHLNMKLTRAQFEGIVTDLIRRTIAPCQKAMQDAEV
SKSDIGEVILVGGMTRMPKVQQTVQDLFGRAPSKAVNPDEAVAIGAAIQGGVLAGDVTDVLLLDVTPLSLGIETL
GGVFTKLINRNTTIPTKKSQVFSTAADGQTQVEIKVCQGEREMAGDNKLLGQFTLIGIPPAPRGVPQIEVTFDID
ANGIVHVSAKDKGTGREQQIVIQSSGGLSKDDIENMVKNAEKYAEEDRRKKERVEAVNMAEGIIHDTETKMEEFK
DQLPADECNKLKEEISKMRELLARKDSETGENIRQAASSLQQASLKLFEMAYKKMASEREGSGSSGTGEQKEDQK
EEKQ

FIGURE 29

GCCGTGTCGCCACC**ATG**GCTCCGCACCGCCCCGCGCCCGCGCTGCTTTGCGCGCTGTCCCTGGCGCTGTGCGCGC
TGTCGCTGCCCGTCCGCGCGGCCACTGCGTCGCGGGGGGCGTCCCAGGCGGGGGCGCCCCAGGGGCGGGTGCCCG
AGGCGCGGCCCAACAGCATGGTGGTGGAACACCCCGAGTTCCTCAAGGCAGGGAAGGAGCCTGGCCTGCAGATCT
GGCGTGTGGAGAAGTTCGATCTGGTGCCCGTGCCCACCAACCTTTATGGAGACTTCTTCACGGGCGACGCCTACG
TCATCCTGAAGACAGTGCAGCTGAGGAACGGAAATCTGCAGTATGACCTCCACTACTGGCTGGGCAATGAGTGCA
GCCAGGATGAGAGCGGGGCGGCCGCCATCTTTACCGTGCAGCTGGATGACTACCTGAACGGCCGGGCCGTGCAGC
ACCGTGAGGTCCAGGGCTTCGAGTCGGCCACCTTCCTAGGCTACTTCAAGTCTGGCCTGAAGTACAAGAAAGGAG
GTGTGGCATCAGGATTCAAGCACGTGGTACCCAACGAGGTGGTGGTGCAGAGACTCTTCCAGGTCAAAGGGCGGC
GTGTGGTCCGTGCCACCGAGGTACCTGTGTCCTGGGAGAGCTTCAACAATGGCGACTGCTTCATCCTGGACCTGG
GCAACAACATCCACCAGTGGTGTGGTTCCAACAGCAATCGGTATGAAAGACTGAAGGCCACACAGGTGTCCAAGG
GCATCCGGGACAACGAGCGGAGTGGCCGGGCCCGAGTGCACGTGTCTGAGGAGGGCACTGAGCCCGAGGCGATGC
TCCAGGTGCTGGGCCCCAAGCCGGCTCTGCCTGCAGGTACCGAGGACACCGCCAAGGAGGATGCGGCCAACCGCA
AGCTGGCCAAGCTCTACAAGGTCTCCAATGGTGCAGGGACCATGTCCGTCTCCCTCGTGGCTGATGAGAACCCCT
TCGCCCAGGGGGCCCTGAAGTCAGAGGACTGCTTCATCCTGGACCACGGCAAAGATGGGAAAATCTTTGTCTGGA
AAGGCAAGCAGGCAAACACGGAGGAGAGGAAGGCTGCCCTCAAAACAGCCTCTGACTTCATCACCAAGATGGACT
ACCCCAAGCAGACTCAGGTCTCGGTCCTTCCTGAGGGCGGTGAGACCCCACTGTTCAAGCAGTTCTTCAAGAACT
GGCGGGACCCAGACCAGACAGATGGCCTGGGCTTGTCCTACCTTTCCAGCCATATCGCCAACGTGGAGCGGGTGC
CCTTCGACGCCGCCACCCTGCACACCTCCACTGCCATGGCCGCCCAGCACGGCATGGATGACGATGGCACAGGCC
AGAAACAGATCTGGAGAATCGAAGGTTCCAACAAGGTGCCCGTGGACCCTGCCACATATGGACAGTTCTATGGAG
GCGACAGCTACATCATTCTGTACAACTACCGCCATGGTGGCCGCCAGGGGCAGATAATCTATAACTGGCAGGGTG
CCCAGTCTACCCAGGATGAGGTCGCTGCATCTGCCATCCTGACTGCTCAGCTGGATGAGGAGCTGGGAGGTACCC
CTGTCCAGAGCCGTGTGGTCCAAGGCAAGGAGCCCGCCCACCTCATGAGCCTGTTTGGTGGGAAGCCCATGATCA
TCTACAAGGGCGGCACCTCCCGCGAGGGCGGGCAGACAGCCCCTGCCAGCACCCGCCTCTTCCAGGTCCGCGCCA
ACAGCGCTGGAGCCACCCGGGCTGTTGAGGTATTGCCTAAGGCTGGTGCACTGAACTCCAACGATGCCTTTGTTC
TGAAAACCCCCTCAGCCGCCTACCTGTGGGTGGGTACAGGAGCCAGCGAGGCAGAGAAGACGGGGGCCCAGGAGC
TGCTCAGGGTGCTGCGGGCCCAACCTGTGCAGGTGGCAGAAGGCAGCGAGCCAGATGGCTTCTGGGAGGCCCTGG
GCGGGAAGGCTGCCTACCGCACATCCCCACGGCTGAAGGACAAGAAGATGGATGCCCATCCTCCTCGCCTCTTTG
CCTGCTCCAACAAGATTGGACGTTTTGTGATCGAAGAGGTTCCTGGTGAGCTCATGCAGGAAGACCTGGCAACGG
ATGACGTCATGCTTCTGGACACCTGGGACCAGGTCTTTGTCTGGGTTGGAAAGGATTCTCAAGAAGAAGAAAGA
CAGAAGCCTTGACTTCTGCTAAGCGGTACATCGAGACGGACCCAGCCAATCGGGATCGGCGGACGCCCATCACCG
TGGTGAAGCAAGGCTTTGAGCCTCCCTCCTTTGTGGGCTGGTTCCTTGGCTGGATGATGATTACTGGTCTGTGG
ACCCCTTGGACAGGGCCATGGCTGAGCTGGCTGCC**TGA**GGAGGGGCAGGGCCCACCCATGTCACCGGTCAGTGCC
TTTTGGAACTGTCCTTCCCTCAAAGAGGCCTTAGAGCGAGCAGAGCAGCTCTGCTATGAGTGTGTGTGTGTGTGT
GTGTTGTTTCTTTTTTTTTTTTTTACAGTATCCAAAAATAGCCCTGCAAAAATTCAGAGTCCTTGCAAAATTGTC
TAAAATGTCAGTGTTTGGGAAATTAAATCCAATAAAAACATTTTGAAGTGTG

FIGURE 30

MAPHRPAPALLCALSLALCALSLPVRAATASRGASQAGAPQGRVPEARPNSMVVEHPEFLKAGKEPGLQIWRVEK
FDLVPVPTNLYGDFFTGDAYVILKTVQLRNGNLQYDLHYWLGNECSQDESGAAAIFTVQLDDYLNGRAVQHREVQ
GFESATFLGYFKSGLKYKKGGVASGFKHVVPNEVVVQRLFQVKGRRVVRATEVPVSWESFNNGDCFILDLGNNIH
QWCGSNSNRYERLKATQVSKGIRDNERSGRARVHVSEEGTEPEAMLQVLGPKPALPAGTEDTAKEDAANRKLAKL
YKVSNGAGTMSVSLVADENPFAQGALKSEDCFILDHGKDGKIFVWKGKQANTEERKAALKTASDFITKMDYPKQT
QVSVLPEGGETPLFKQFFKNWRDPDQTDGLGLSYLSSHIANVERVPFDAATLHTSTAMAAQHGMDDDGTGQKQIW
RIEGSNKVPVDPATYGQFYGGDSYIILYNYRHGGRQGQIIYNWQGAQSTQDEVAASAILTAQLDEELGGTPVQSR
VVQGKEPAHLMSLFGGKPMIIYKGGTSREGGQTAPASTRLFQVRANSAGATRAVEVLPKAGALNSNDAFVLKTPS
AAYLWVGTGASEAEKTGAQELLRVLRAQPVQVAEGSEPDGFWEALGGKAAYRTSPRLKDKKMDAHPPRLFACSNK
IGRFVIEEVPGELMQEDLATDDVMLLDTWDQVFVWVGKDSQEEEKTEALTSAKRYIETDPANRDRRTPITVVKQG
FEPPSFVGWFLGWDDDYWSVDPLDRAMAELAA

FIGURE 31

CGCCCCTGCTCTCGCGCCGGCGTCGGCTGCGTCTCCGGCGTTTGAATTGCGCTTCCGCCATCTTTCCAGCCTCAG
TCGGACGGGCGCGGAGGCGCTTCTGGAAGGAACGCCGCG**ATG**GCTGCGCAGGGAGAGCCCCAGGTCCAGTTCAAA
CTTGTATTGGTTGGTGATGGTGGTACTGGAAAAACGACCTTCGTGAAACGTCATTTGACTGGTGAATTTGAGAAG
AAGTATGTAGCCACCTTGGGTGTTGAGGTTCATCCCCTAGTGTTCCACACCAACAGAGGACCTATTAAGTTCAAT
GTATGGGACACAGCCGGCCAGGAGAAATTCGGTGGACTGAGAGATGGCTATTATATCCAAGCCCAGTGTGCCATC
ATAATGTTTGATGTAACATCGAGAGTTACTTACAAGAATGTGCCTAACTGGCATAGAGATCTGGTACGAGTGTGT
GAAAACATCCCCATTGTGTTGTGTGGCAACAAAGTGGATATTAAGGACAGGAAAGTGAAGGCGAAATCCATTGTC
TTCCACCGAAAGAAGAATCTTCAGTACTACGACATTTCTGCCAAAAGTAACTACAACTTTGAAAAGCCCTTCCTC
TGGCTTGCTAGGAAGCTCATTGGAGACCCTAACTTGGAATTTGTTGCCATGCCTGCTCTCGCCCCACCAGAAGTT
GTCATGGACCCAGCTTTGGCAGCACAGTATGAGCACGACTTAGAGGTTGCTCAGACAACTGCTCTCCCGGATGAG
GATGATGACCTG**TGA**GAATGAAGCTGGAGCCCAGCGTCAGAAGTCTAGTTTTATAGGCAGCTGTCCTGTGATGTC
AGCGGTGCAGCGTGTGTGCCACCTCATTATTATCTAGCTAAGCGGAACATGTGCTTTATCTGTGGGATGCTGAAG
GAGATGAGTGGGCTTCGGAGTGAATGTGGCAGTTTAAAAAAATAACTTCATTGTTTGGACCTGCATATTTAGCTGT
TTGGACGCAGTTGATTCCTTGAGTTTCATATATAAGACTGCTGCAGTCACATCACAATATTCAGTGGTGAAATCT
TGTTTGTTACTGTCATTCCCATTCCTTTTCTTTAGAATCAGAATAAAGTTGTATTTCAAATATCTAAGCAAGTGA
ACTCATCCCTTGTTTATAAATAGCATTTGGAAACCACTAAAGTAGGGAAGTTTTATGCCATGTTAATATTTGAAT
TGCCTTGCTTTTATCACTTAATTTGAAATCTATTGGGTTAATTTCTCCCTATGTTTATTTTTGTACATTTGAGCC
ATGTCACACAAACTGATGATGACAGGTCAGCAGTATTCTATTTGGTTAGAAGGGTTACATGGTGTAAATATTAGT
GCAGTTAAGCTAAAGCAGTGTTTGCTCCACCTTCATATTGGCTAGGTAGGGTCACCTAGGGAAGCACTTGCTCAA
AATCTGTGACCTGTCAGAATAAAAATGTGGTTTGTACATATCAAATAGATATTTAAGGGTAATATTTTCTTTTA
TGGCAAAAGTAATCATGTTTTAATGTAGAACCTCAAACAGGATGGAACATCAGTGGATGGCAGGAGGTTGGGAAT
TCTTGCTGTTAAAAATAATTACAAATTTTGCACTTTTTGTTTGAATGTTAGATGCTTAGTGTGAAGTTGATACGC
AAGCCG

FIGURE 32

MAAQGEPQVQFKLVLVGDGGTGKTTFVKRHLTGEFEKKYVATLGVEVHPLVFHTNRGPIKFNVWDTAGQEKFGGL
RDGYYIQAQCAIIMFDVTSRVTYKNVPNWHRDLVRVCENIPIVLCGNKVDIKDRKVKAKSIVFHRKKNLQYYDIS
AKSNYNFEKPFLWLARKLIGDPNLEFVAMPALAPPEVVMDPALAAQYEHDLEVAQTTALPDEDDDL

FIGURE 33

GGCACGAGGCGCCCGCCTGCTACGAGTAGAACGCTGTCCGCAGCTTGCGCATTTCGCAGCCGCTGCCGCCTCGCC
GCTGCTCCTTCGTAAGGCCACTTCCGCACACCGACACCAAC**ATG**AACGGACAGCTCAACGGCTTCCACGAGGCGT
TCATCGAGGAGGGCACATTCCTTTTCACCTCAGAGTCGGTCGGGGAAGGCCACCCAGATAAGATTTGTGACCAAA
TCAGTGATGCTGTCCTTGATGCCCACCTTCAGCAGGATCCTGATGCCAAAGTAGCTTGTGAAACTGTTGCTAAAA
CTGGAATGATCCTTCTTGCTGGGGAAATTACATCCAGAGCTGCTGTTGACTACCAGAAAGTGGTTCGTGAAGCTG
TTAAACACATTGGATATGATGATTCTTCCAAAGGTTTTGACTACAAGACTTGTAACGTGCTGGTAGCCTTGGAGC
AACAGTCACCAGATATTGCTCAAGGTGTTCATCTTGACAGAAATGAAGAAGACATTGGTGCTGGAGACCAGGGCT
TAATGTTTGGCTATGCCACTGATGAAACTGAGGAGTGTATGCCTTTAACCATTGTCTTGGCACACAAGCTAAATG
CCAAACTGGCAGAACTACGCCGTAATGGCACTTTGCCTTGGTTACGCCCTGATTCTAAAACTCAAGTTACTGTGC
AGTATATGCAGGATCGAGGTGCTGTGCTTCCCATCAGAGTCCACACAATTGTTATATCTGTTCAGCATGATGAAG
AGGTTTGTCTTGATGAAATGAGGGATGCCCTAAAGGAGAAAGTCATCAAAGCAGTTGTGCCTGCGAAATACCTTG
ATGAGGATACAATCTACCACCTACAGCCAAGTGGCAGATTTGTTATTGGTGGGCCTCAGGGTGATGCTGGTTTGA
CTGGACGCAAAATCATTGTGGACACTTATGGCGGTTGGGGTGCTCATGGAGGAGGTGCCTTTTCAGGAAAGGATT
ATACCAAGGTCGACCGTTCAGCTGCTTATGCTGCTCGTTGGGTGGCAAAATCCCTTGTTAAAGGAGGTCTGTGCC
GGAGGGTTCTTGTTCAGGTCTCTTATGCTATTGGAGTTTCTCATCCATTATCTATCTCCATTTTCCATTATGGTA
CCTCTCAGAAGAGTGAGAGAGAGCTATTAGAGATTGTGAAGAAGAATTTCGATCTCCGCCCTGGGGTCATTGTCA
GGGATCTGGATCTGAAGAAGCCAATTTATCAGAGGACTGCAGCCTATGGCCACTTTGGTAGGGACAGCTTCCCAT
GGGAAGTGCCCAAAAAGCTTAAATAT**TGA**AAGTGTTAGCCTTTTTTCCCCAGACTTGTTGGCGTAGGCTACAGAG
AAGCCTTCAAGCTCTGAGGGAAAGGGCCCTCCTTCCTAAATTTTCCTGTCCTCTTTCAGCTCCTGACCAGTTGCA
GTCACTCTAGTCAATGACATGAATTTTAGCTTTTGTGGGGGACTGTAAGTTGGGCTTGCTATTCTGTCCCTAGGT
GTTTTGTTCACCATTATAATGAATTTAGTGAGCATAGGTGATCCATGTAACTGCCTAGAAACAACACTGTAGTAA
ATAATGCTTTGAAATTGAACCTTTGTGCCCTATCACCCAACGCTCCAAAGTCATAATTGCATTGACTTTCCCCAC
CAGATGCTGAAAATGTCCTTGTGATGTGCACGTAAAGTACTTGTAGTTCCACTTATAGCCTCTGTCTGGCAATGC
CACAGCCCTGTCAGCATGAATTTGTAATGTCTTGAGCTCTATTATGAATGTGAAGCCTTCCCCTTATCCTCCCTG
TAACTTGATCCATTTCTAATTATGTAGCTCTTTGTCAGGGAGTGTTCCCTATCCAATCAATCTTGCATGTAACGC
AAGTTCCCAGTTGGAGCTCCAGCCTGACATCAAAAAAGGCAGTTACCATTAAACCATCTCCCTGGTGCTTATGCT
CTTAATTGCCACCTCTAACAGCACCAAATCAAAATCTCTCCACTTTCAGCTGTCTTTTGGAGGACGTACGTAATA
AGGTTTTAATTTAGTAAACCAATCCTATGCATGGTTTCAGCACTAGCCAAACCTCACCAACTCCTAGTTCTAGAA
AAACAGGCACTTGGCAGCCTTGTGATGTCATACAGAGAAGTCACAGGGCAGTACCTGAGGGTCTGTAGGTTGCAC
ACTTTGGTACCAGATAACTTTTTTTTTTCTTTATAAGAAAGCCTGAGTACTCCACACTGCACAATAACTCCTCCC
AGGGTTTTAACTTTGTTTTATTTTCAAAACCAGGTCCAATGAGCTTTCTGAACAGCTGGTGTAGCTACAGAGAAA
CCAGCTTCCTTCAGAGAGCAGTGCTTTTGGCGGGGAGGAGGAAATCCCTTCATACTTGAACGTTTTCTAATTGCT
TATTTATTGTATTCTGGGGTATGGCGTAAGTACAGAGAAGCCATCACCTCAGATGGCAGCTTTTAAAGATTTTT
TTTTTTTCTCTCAACACCATGATTCCTTTAACAACATGTTTCCAGCATTCCCAGGTAGGCCAAGGTGTCCTACAG
AAAAACCTTGGGTTAGACCTACAGGGGGTCTGGCTGGTGTTAACAGAAGGGAGGGCAGAGCTGGTGCGGCTGGCC
ATGGAGAAAGCTGACTTGGCTGGTGTGGTACAGAGAAGCCAGCTTGTTTACATGCTTATTCCATGACTGCTTGCC
CTAAGCAGAAAGTGCCTTTCAGGATCTATTTTTGGAGGTTTATTACGTATGTCTGGTTCTCAATTCCAACAGTTT
AATGAAGATCTAAATAAAATGCTAGGTTCTACCTTAAAAAAAAAAAAAAAAAAAA

FIGURE 34

MNGQLNGFHEAFIEEGTFLFTSESVGEGHPDKICDQISDAVLDAHLQQDPDAKVACETVAKTGMILLAGEITSRA
AVDYQKVVREAVKHIGYDDSSKGFDYKTCNVLVALEQQSPDIAQGVHLDRNEEDIGAGDQGLMFGYATDETEECM
PLTIVLAHKLNAKLAELRRNGTLPWLRPDSKTQVTVQYMQDRGAVLPIRVHTIVISVQHDEEVCLDEMRDALKEK
VIKAVVPAKYLDEDTIYHLQPSGRFVIGGPQGDAGLTGRKIIVDTYGGWGAHGGGAFSGKDYTKVDRSAAYAARW
VAKSLVKGGLCRRVLVQVSYAIGVSHPLSISIFHYGTSQKSERELLEIVKKNFDLRPGVIVRDLDLKKPIYQRTA
AYGHFGRDSFPWEVPKKLKY

FIGURE 35

GGCACGAGGCGCCCGCCTGCTACGAGTAGAACGCTGTCCGCAGCTTGCGCATTTCGCAGCCGCTGCCGCCTCGCC
GCTGCTCCTTCGTAAGGCCACTTCCGCACACCGACACCAAC**ATG**AACGGACAGCTCAACGGCTTCCACGAGGCGT
TCATCGAGGAGGGCACATTCCTTTTCACCTCAGAGTCGGTCGGGGAAGGCCACCCAGATAAGATTTGTGACCAAA
TCAGTGATGCTGTCCTTGATGCCCACCTTCAGCAGGATCCTGATGCCAAAGTAGCTTGTGAAACTGTTGCTAAAA
CTGGAATGATCCTTCTTGCTGGGGAAATTACATCCAGAGCTGCTGTTGACTACCAGAAAGTGGTTCGTGAAGCTG
TTAAACACATTGGATATGATGATTCTTCCAAAGGTTTTGACTACAAGACTTGTAACGTGCTGGTAGCCTTGGAGC
AACAGTCACCAGATATTGCTCAAGGTGTTCATCTTGACAGAAATGAAGAAGACATTGGTGCTGGAGACCAGGGCT
TAATGTTTGGCTATGCCACTGATGAAACTGAGGAGTGTATGCCTTTAACCATTGTCTTGGCACACAAGCTAAATG
CCAAACTGGCAGAACTACGCCGTAATGGCACTTTGCCTTGGTTACGCCCTGATTCTAAAACTCAAGTTACTGTGC
AGTATATGCAGGATCGAGGTGCTGTGCTTCCCATCAGAGTCCACACAATTGTTATATCTGTTCAGCATGATGAAG
AGGTTTGTCTTGATGAAATGAGGGATGCCCTAAAGGAGAAAGTCATCAAAGCAGTTGTGCCTGCGAAATACCTTG
ATGAGGATACAATCTACCACCTACAGCCAAGTGGCAGATTTGTTATTGGTGGGCCTCAGGGTGATGCTGGTTTGA
CTGGACGCAAAATCATTGTGGACACTTATGGCGGTTGGGGTGCTCATGGAGGAGGTGCCTTTTCAGGAAAGGATT
ATACCAAGGTCGACCGTTCAGCTGCTTATGCTGCTCGTTGGGTGGCAAAATCCCTTGTTAAAGGAGGTCTGTGCC
GGAGGGTTCTTGTTCAGGTCTCTTATGCTATTGGAGTTTCTCATCCATTATCTATCTCCATTTTCCATTATGGTA
CCTCTCAGAAGAGTGAGAGAGAGCTATTAGAGATTGTGAAGAAGAATTTCGATCTCCGCCCTGGGGTCATTGTCA
GGGATCTGGATCTGAAGAAGCCAATTTATCAGAGGACTGCAGCCTATGGCCACTTTGGTAGGGACAGCTTCCCAT
GGGAAGTGCCCAAAAAGCTTAAATAT**TGA**AAGTGTTAGCCTTTTTTCCCCAGACTTGTTGGCGTAGGCTACAGAG
AAGCCTTCAAGCTCTGAGGGAAAGGGCCCTCCTTCCTAAATTTTCCTGTCCTCTTTCAGCTCCTGACCAGTTGCA
GTCACTCTAGTCAATGACATGAATTTTAGCTTTTGTGGGGGACTGTAAGTTGGGCTTGCTATTCTGTCCCTAGGT
GTTTTGTTCACCATTATAATGAATTTAGTGAGCATAGGTGATCCATGTAACTGCCTAGAAACAACACTGTAGTAA
ATAATGCTTTGAAATTGAACCTTTGTGCCCTATCACCCAACGCTCCAAAGTCATAATTGCATTGACTTTCCCCAC
CAGATGCTGAAAATGTCCTTGTGATGTGCACGTAAAGTACTTGTAGTTCCACTTATAGCCTCTGTCTGGCAATGC
CACAGCCCTGTCAGCATGAATTTGTAATGTCTTGAGCTCTATTATGAATGTGAAGCCTTCCCCTTATCCTCCCTG
TAACTTGATCCATTTCTAATTATGTAGCTCTTTGTCAGGGAGTGTTCCCTATCCAATCAATCTTGCATGTAACGC
AAGTTCCCAGTTGGAGCTCCAGCCTGACATCAAAAAAGGCAGTTACCATTAAACCATCTCCCTGGTGCTTATGCT
CTTAATTGCCACCTCTAACAGCACCAAATCAAAATCTCTCCACTTTCAGCTGTCTTTTGGAGGACGTACGTAATA
AGGTTTTAATTTAGTAAACCAATCCTATGCATGGTTTCAGCACTAGCCAAACCTCACCAACTCCTAGTTCTAGAA
AAACAGGCACTTGGCAGCCTTGTGATGTCATACAGAGAAGTCACAGGGCAGTACCTGAGGGTCTGTAGGTTGCAC
ACTTTGGTACCAGATAACTTTTTTTTTTCTTTATAAGAAAGCCTGAGTACTCCACACTGCACAATAACTCCTCCC
AGGGTTTTAACTTTGTTTTATTTTCAAAACCAGGTCCAATGAGCTTTCTGAACAGCTGGTGTAGCTACAGAGAAA
CCAGCTTCCTTCAGAGAGCAGTGCTTTTGGCGGGGAGGAGGAAATCCCTTCATACTTGAACGTTTTCTAATTGCT
TATTTATTGTATTCTGGGGTATGGCGTAAGTACAGAGAAGCCATCACCTCAGATGGCAGCTTTTAAAAGATTTTT
TTTTTTTCTCTCAACACCATGATTCCTTTAACAACATGTTTCCAGCATTCCCAGGTAGGCCAAGGTGTCCTACAG
AAAAACCTTGGGTTAGACCTACAGGGGGTCTGGCTGGTGTTAACAGAAGGGAGGGCAGAGCTGGTGCGGCTGGCC
ATGGAGAAAGCTGACTTGGCTGGTGTGGTACAGAGAAGCCAGCTTGTTTACATGCTTATTCCATGACTGCTTGCC
CTAAGCAGAAAGTGCCTTTCAGGATCTATTTTTGGAGGTTTATTACGTATGTCTGGTTCTCAATTCCAACAGTTT
AATGAAGATCTAAATAAAATGCTAGGTTCTACCTTAAAAAAAAAAAAAAAAAAA

FIGURE 36

MNGQLNGFHEAFIEEGTFLFTSESVGEGHPDKICDQISDAVLDAHLQQDPDAKVACETVAKTGMILLAGEITSRA
AVDYQKVVREAVKHIGYDDSSKGFDYKTCNVLVALEQQSPDIAQGVHLDRNEEDIGAGDQGLMFGYATDETEECM
PLTIVLAHKLNAKLAELRRNGTLPWLRPDSKTQVTVQYMQDRGAVLPIRVHTIVISVQHDEEVCLDEMRDALKEK
VIKAVVPAKYLDEDTIYHLQPSGRFVIGGPQGDAGLTGRKIIVDTYGGWGAHGGGAFSGKDYTKVDRSAAYAARW
VAKSLVKGGLCRRVLVQVSYAIGVSHPLSISIFHYGTSQKSERELLEIVKKNFDLRPGVIVRDLDLKKPIYQRTA
AYGHFGRDSFPWEVPKKLKY

FIGURE 37

GTCAGTCCCTCCTGTAGCCGCCGCCGCCGCCGCCCGCCGCCCCTCTGCCAGCAGCTCCGGCGCCACCTCGGGCCG
GCGTCTCCGGCGGGCGGGAGCCAGGCGCTGACGGGCGCGGCGGGGGCGGCCGAGCGCTCCTGCGGCTGCGACTCA
GGCTCCGGCGTCTGCGCTTCCCCATGGGGCTGGCCTGCGGCGCCTGGGCGCTCTGAGATTGTCACTGCTGTTCCA
AGGGCACACGCAGAGGGATTTGGAATTCCTGGAGAGTTGCCTTTGTGAGAAGCTGGAAATATTTCTTTCAATTCC
ATCTCTTAGTTTTCCATAGGAACATCAAGAAATC**ATG**AACAACTTTGGTAATGAAGAGTTTGACTGCCACTTCCT
CGATGAAGGTTTTACTGCCAAGGACATTCTGGACCAGAAAATTAATGAAGTTTCTTCTTCTGATGATAAGGATGC
CTTCTATGTGGCAGACCTGGGAGACATTCTAAAGAAACATCTGAGGTGGTTAAAAGCTCTCCCTCGTGTCACCCC
CTTTTATGCAGTCAAATGTAATGATAGCAAAGCCATCGTGAAGACCCTTGCTGCTACCGGGACAGGATTTGACTG
TGCTAGCAAGACTGAAATACAGTTGGTGCAGAGTCTGGGGGGTGCCTCCAGAGAGGATTATCTATGCAAATCCTTG
TAAACAAGTATCTCAAATTAAGTATGCTGCTAATAATGGAGTCCAGATGATGACTTTTGATAGTGAAGTTGAGTT
GATGAAAGTTGCCAGAGCACATCCCAAAGCAAAGTTGGTTTTGCGGATTGCCACTGATGATTCCAAAGCAGTCTG
TCGTCTCAGTGTGAAATTCGGTGCCACGCTCAGAACCAGCAGGCTCCTTTTGGAACGGGCGAAAGAGCTAAATAT
CGATGTTGTTGGTGTCAGCTTCCATGTAGGAAGCGGCTGTACCGATCCTGAGACCTTCGTGCAGGCAATCTCTGA
TGCCCGCTGTGTTTTTGACATGGGGGGCTGAGGTTGGTTTCAGCATGTATCTGCTTGATATTGGCGGTGGCTTTCC
TGGATCTGAGGATGTGAAACTTAAATTTGAAGAGATCACCGGCGTAATCAACCCAGCGTTGGACAAATACTTTCC
GTCAGACTCTGGAGTGAGAATCATAGCTGAGCCCGGCAGATACTATGTTGCATCAGCTTTCACGCTTGCAGTTAA
TATCATTGCCAAGAAAATTGTATTAAAGGAACAGACGGGCTCTGATGACGAAGATGAGTCGAGTGAGCAGACCTT
TATGTATTATGTGAATGATGGCGTCTATGGATCATTTAATTGCATACTCTATGACCACGCACATGTAAAGCCCCT
TCTGCAAAAGAGACCTAAACCAGATGAGAAGTATTATTCATCCAGCATATGGGGACCAACATGTGATGGCCTCGA
TCGGATTGTTGAGCGCTGTGACCTGCCTGAAATGCATGTGGGTGATTGGATGCTCTTTGAAAACATGGGCGCTTA
CACTGTTGCTGCTGCCTCTACGTTCAATGGCTTCCAGAGGCCGACGATCTACTATGTGATGTCAGGGCCTGCGTG
GCAACTCATGCAGCAATTCCAGAACCCCGACTTCCCACCCGAAGTAGAGGAACAGGATGCCAGCACCCTGCCTGT
GTCTTGTGCCTGGGAGAGTGGGATGAAACGCCACAGAGCAGCCTGTGCTTCGGCTAGTATTAATGTG**TAG**ATAGC
ACTCTGGTAGCTGTTAACTGCAAGTTTAGCTTGAATTAAGGGATTTGGGGGGACCATGTAACTTAATTACTGCTA
GTTTTGAAATGTCTTTGTAAGAGTAGGGTCGCCATGATGCAGCCATATGGAAGACTAGGATATGGGTCACACTTA
TCTGTGTTCCTATGGAAACTATTTGAATATTTGTTTTATATGGATTTTTATTCACTCTTCAGACACGCTACTCAA
GAGTGCCCCTCAGCTGCTGAACAAGCATTTGTAGCTTGTACAATGGCAGAATGGGCCAAAAGCTTAGTGTTGTGA
CCTGTTTTTAAAATAAAGTATCTTGAAATAATTAGGC

FIGURE 38

MNNFGNEEFDCHFLDEGFTAKDILDQKINEVSSSDDKDAFYVADLGDILKKHLRWLKALPRVTPFYAVKCNDSKA
IVKTLAATGTGFDCASKTEIQLVQSLGVPPERIIYANPCKQVSQIKYAANNGVQMMTFDSEVELMKVARAHPKAK
LVLRIATDDSKAVCRLSVKFGATLRTSRLLLERAKELNIDVVGVSFHVGSGCTDPETFVQAISDARCVFDMGAEV
GFSMYLLDIGGGFPGSEDVKLKFEEITGVINPALDKYFPSDSGVRIIAEPGRYYVASAFTLAVNIIAKKIVLKEQ
TGSDDEDESSEQTFMYYVNDGVYGSFNCILYDHAHVKPLLQKRPKPDEKYYSSSIWGPTCDGLDRIVERCDLPEM
HVGDWMLFENMGAYTVAAASTFNGFQRPTIYYVMSGPAWQLMQQFQNPDFPPEVEEQDASTLPVSCAWESGMKRH
RAACASASINV

FIGURE 39

CACGCTTGCCGCCGCCCCGCAGAA**ATG**CTTCGGTTACCCACAGTCTTTCGCCAGATGAGACCGGTGTCCAGGGTA
CTGGCTCCTCATCTCACTCGGGCTTATGCCAAAGATGTAAAATTTGGTGCAGATGCCCGAGCCTTAATGCTTCAA
GGTGTAGACCTTTTAGCCGATGCTGTGGCCGTTACAATGGGGCCAAAGGGAAGAACAGTGATTATTGAGCAGGGT
TGGGGAAGTCCCAAAGTAACAAAAGATGGTGTGACTGTTGCAAAGTCAATTGACTTAAAAGATAAATACAAGAAC
ATTGGAGCTAAACTTGTTCAAGATGTTGCCAATAACACAAATGAAGAAGCTGGGGATGGCACTACCACTGCTACT
GTACTGGCACGCTCTATAGCCAAGGAAGGCTTCGAGAAGATTAGCAAAGGTGCTAATCCAGTGGAAATCAGGAGA
GGTGTGATGTTAGCTGTTGATGCTGTAATTGCTGAACTTAAAAAGCAGTCTAAACCTGTGACCACCCCTGAAGAA
ATTGCACAGGTTGCTACGATTTCTGCAAACGGAGACAAAGAAATTGGCAATATCATCTCTGATGCAATGAAAAAA
GTTGGAAGAAAGGGTGTCATCACAGTAAAGGATGGAAAAACACTGAATGATGAATTAGAAATTATTGAAGGCATG
AAGTTTGATCGAGGCTATATTTCTCCATACTTTATTAATACATCAAAAGGTCAGAAATGTGAATTCCAGGATGCC
TATGTTCTGTTGAGTGAAAAGAAAATTTCTAGTATCCAGTCCATTGTACCTGCTCTTGAAATTGCCAATGCTCAC
CGTAAGCCTTTGGTCATAATCGCTGAAGATGTTGATGGAGAAGCTCTAAGTACACTCGTCTTGAATAGGCTAAAG
GTTGGTCTTCAGGTTGTGGCAGTCAAGGCTCCAGGGTTTGGTGACAATAGAAAGAACCAGCTTAAAGATATGGCT
ATTGCTACTGGTGGTGCAGTGTTTGGAGAAGAGGGATTGACCCTGAATCTTGAAGACGTTCAGCCTCATGACTTA
GGAAAAGTTGGAGAGGTCATTGTGACCAAAGACGATGCCATGCTCTTAAAAGGAAAAGGTGACAAGGCTCAAATT
GAAAAACGTATTCAAGAAATCATTGAGCAGTTAGATGTCACAACTAGTGAATATGAAAAGGAAAAACTGAATGAA
CGGCTTGCAAAACTTTCAGATGGAGTGGCTGTGCTGAAGGTTGGTGGGACAAGTGATGTTGAAGTGAATGAAAAG
AAAGACAGAGTTACAGATGCCCTTAATGCTACAAGAGCTGCTGTTGAAGAAGGCATTGTTTTGGGAGGGGGTTGT
GCCCTCCTTCGATGCATTCCAGCCTTGGACTCATTGACTCCAGCTAATGAAGATCAAAAAATTGGTATAGAAATT
ATTAAAAGAACACTCAAAATTCCAGCAATGACCATTGCTAAGAATGCAGGTGTTGAAGGATCTTTGATAGTTGAG
AAAATTATGCAAAGTTCCTCAGAAGTTGGTTATGATGCTATGGCTGGAGATTTTGTGAATATGGTGGAAAAAGGA
ATCATTGACCCAACAAAGGTTGTGAGAACTGCTTTATTGGATGCTGCTGGTGTGGCCTCTCTGTTAACTACAGCA
GAAGTTGTAGTCACAGAAATTCCTAAAGAAGAGAAGGACCCTGGAATGGGTGCAATGGGTGGAATGGGAGGTGGT
ATGGGAGGTGGCATGTTC**TAA**CTCCTAGACTAGTGCTTTACCTTTATTAATGAACTGTGACAGGAAGCCCAAGGC
AGTGTTCCTCACCAATAACTTCAGAGAAGTCAGTTGGAGAAAATGAAGAAAAGGCTGGCTGAAAATCACTATAA
CCATCAGTTACTGGTTTCAGTTGACAAAATATATAATGGTTTACTGCTGTCATTGTCCATGCCTACAGATAATTT
ATTTTGTATTTTTGAATAAAAAACATTTGTACATTCCTGATACTGGGTACAAGAGCCATGTACCAGTGTACTGCT
TTCAACTTAAATCACTGAGGCATTTTTACTACTATTCTGTTAAAATCAGGATTTTAGTGCTTGCCACCACCAGAT
GAGAAGTTAAGCAGCCTTTCTGTGGAGAGTGAGAATAATTGTGTACAAAGTAGAGAAGTATCCAATTATGTGACA
ACCTTTGTGTAATAAAAATTTGTTTAA

FIGURE 40

MLRLPTVFRQMRPVSRVLAPHLTRAYAKDVKFGADARALMLQGVDLLADAVAVTMGPKGRTVIIEQGWGSPKVTK
DGVTVAKSIDLKDKYKNIGAKLVQDVANNTNEEAGDGTTTATVLARSIAKEGFEKISKGANPVEIRRGVMLAVDA
VIAELKKQSKPVTTPEEIAQVATISANGDKEIGNIISDAMKKVGRKGVITVKDGKTLNDELEIIEGMKFDRGYIS
PYFINTSKGQKCEFQDAYVLLSEKKISSIQSIVPALEIANAHRKPLVIIAEDVDGEALSTLVLNRLKVGLQVVAV
KAPGFGDNRKNQLKDMAIATGGAVFGEEGLTLNLEDVQPHDLGKVGEVIVTKDDAMLLKGKGDKAQIEKRIQEII
EQLDVTTSEYEKEKLNERLAKLSDGVAVLKVGGTSDVEVNEKKDRVTDALNATRAAVEEGIVLGGGCALLRCIPA
LDSLTPANEDQKIGIEIIKRTLKIPAMTIAKNAGVEGSLIVEKIMQSSSEVGYDAMAGDFVNMVEKGIIDPTKVV
RTALLDAAGVASLLTTAEVVVTEIPKEEKDPGMGAMGGMGGGMGGGMF

FIGURE 41

CACGCTTGCCGCCGCCCCGCAGAA**ATG**CTTCGGTTACCCACAGTCTTTCGCCAGATGAGACCGGTGTCCAGGGTA
CTGGCTCCTCATCTCACTCGGGCTTATGCCAAAGATGTAAAATTTGGTGCAGATGCCCGAGCCTTAATGCTTCAA
GGTGTAGACCTTTTAGCCGATGCTGTGGCCGTTACAATGGGGCCAAAGGGAAGAACAGTGATTATTGAGCAGGGT
TGGGGAAGTCCCAAAGTAACAAAAGATGGTGTGACTGTTGCAAAGTCAATTGACTTAAAAGATAAATACAAGAAC
ATTGGAGCTAAACTTGTTCAAGATGTTGCCAATAACACAAATGAAGAAGCTGGGGATGGCACTACCACTGCTACT
GTACTGGCACGCTCTATAGCCAAGGAAGGCTTCGAGAAGATTAGCAAAGGTGCTAATCCAGTGGAAATCAGGAGA
GGTGTGATGTTAGCTGTTGATGCTGTAATTGCTGAACTTAAAAAGCAGTCTAAACCTGTGACCACCCCTGAAGAA
ATTGCACAGGTTGCTACGATTTCTGCAAACGGAGACAAAGAAATTGGCAATATCATCTCTGATGCAATGAAAAAA
GTTGGAAGAAAGGGTGTCATCACAGTAAAGGATGGAAAAACACTGAATGATGAATTAGAAATTATTGAAGGCATG
AAGTTTGATCGAGGCTATATTTCTCCATACTTTATTAATACATCAAAAGGTCAGAAATGTGAATTCCAGGATGCC
TATGTTCTGTTGAGTGAAAAGAAAATTTCTAGTATCCAGTCCATTGTACCTGCTCTTGAAATTGCCAATGCTCAC
CGTAAGCCTTTGGTCATAATCGCTGAAGATGTTGATGGAGAAGCTCTAAGTACACTCGTCTTGAATAGGCTAAAG
GTTGGTCTTCAGGTTGTGGCAGTCAAGGCTCCAGGGTTTGGTGACAATAGAAAGAACCAGCTTAAAGATATGGCT
ATTGCTACTGGTGGTGCAGTGTTTGGAGAAGAGGGATTGACCCTGAATCTTGAAGACGTTCAGCCTCATGACTTA
GGAAAAGTTGGAGAGGTCATTGTGACCAAAGACGATGCCATGCTCTTAAAAGGAAAAGGTGACAAGGCTCAAATT
GAAAAACGTATTCAAGAAATCATTGAGCAGTTAGATGTCACAACTAGTGAATATGAAAAGGAAAAACTGAATGAA
CGGCTTGCAAAACTTTCAGATGGAGTGGCTGTGCTGAAGGTTGGTGGGACAAGTGATGTTGAAGTGAATGAAAAG
AAAGACAGAGTTACAGATGCCCTTAATGCTACAAGAGCTGCTGTTGAAGAAGGCATTGTTTTGGGAGGGGGTTGT
GCCCTCCTTCGATGCATTCCAGCCTTGGACTCATTGACTCCAGCTAATGAAGATCAAAAAATTGGTATAGAAATT
ATTAAAAGAACACTCAAAATTCCAGCAATGACCATTGCTAAGAATGCAGGTGTTGAAGGATCTTTGATAGTTGAG
AAAATTATGCAAAGTTCCTCAGAAGTTGGTTATGATGCTATGGCTGGAGATTTTGTGAATATGGTGGAAAAAGGA
ATCATTGACCCAACAAAGGTTGTGAGAACTGCTTTATTGGATGCTGCTGGTGTGGCCTCTCTGTTAACTACAGCA
GAAGTTGTAGTCACAGAAATTCCTAAAGAAGAGAAGGACCCTGGAATGGGTGCAATGGGTGGAATGGGAGGTGGT
ATGGGAGGTGGCATGTTC**TAA**CTCCTAGACTAGTGCTTTACCTTTATTAATGAACTGTGACAGGAAGCCCAAGGC
AGTGTTCCTCACCAATAACTTCAGAGAAGTCAGTTGGAGAAATGAAGAAAAAGGCTGGCTGAAAATCACTATAA
CCATCAGTTACTGGTTTCAGTTGACAAAATATATAATGGTTTACTGCTGTCATTGTCCATGCCTACAGATAATTT
ATTTTGTATTTTTGAATAAAAAACATTTGTACATTCCTGATACTGGGTACAAGAGCCATGTACCAGTGTACTGCT
TTCAACTTAAATCACTGAGGCATTTTTACTACTATTCTGTTAAAATCAGGATTTTAGTGCTTGCCACCACCAGAT
GAGAAGTTAAGCAGCCTTTCTGTGGAGAGTGAGAATAATTGTGTACAAAGTAGAGAAGTATCCAATTATGTGACA
ACCTTTGTGTAATAAAAATTTGTTTAA

FIGURE 42

MLRLPTVFRQMRPVSRVLAPHLTRAYAKDVKFGADARALMLQGVDLLADAVAVTMGPKGRTVIIEQGWGSPKVTK
DGVTVAKSIDLKDKYKNIGAKLVQDVANNTNEEAGDGTTTATVLARSIAKEGFEKISKGANPVEIRRGVMLAVDA
VIAELKKQSKPVTTPEEIAQVATISANGDKEIGNIISDAMKKVGRKGVITVKDGKTLNDELEIIEGMKFDRGYIS
PYFINTSKGQKCEFQDAYVLLSEKKISSIQSIVPALEIANAHRKPLVIIAEDVDGEALSTLVLNRLKVGLQVVAV
KAPGFGDNRKNQLKDMAIATGGAVFGEEGLTLNLEDVQPHDLGKVGEVIVTKDDAMLLKGKGDKAQIEKRIQEII
EQLDVTTSEYEKEKLNERLAKLSDGVAVLKVGGTSDVEVNEKKDRVTDALNATRAAVEEGIVLGGGCALLRCIPA
LDSLTPANEDQKIGIEIIKRTLKIPAMTIAKNAGVEGSLIVEKIMQSSSEVGYDAMAGDFVNMVEKGIIDPTKVV
RTALLDAAGVASLLTTAEVVVTEIPKEEKDPGMGAMGGMGGGMGGGMF

FIGURE 43A

AGCGCCCGCCGCGTCCGGGGCCGGCTGGTGCGCGAGACGCCGCCGAGAGTTGTGAAGGGCGCGGGTGGGGGGCGC
TGCCGGCCTCGTGGGTACGTTCGTGCCGCGTCTGTCCCAGAGCTGGGGCCGCAGGAGCGGAGGCAAGAGGGGCAC
TATGGCAGACAAAGTTAGGAGGCAGAGGCCGAGGAGGCGAGTCTGTTGGGCCTTGGTGGCTGTGCTCTTGGCAGA
CCTGTTGGCACTGAGTGATACACTGGCAGTGATGTCTGTGGACCTGGGCAGTGAGTCCATGAAGGTGGCCATTGT
CAAACCTGGAGTGCCCATGGAAATTGTCTTGAATAAGGAATCTCGGAGGAAAACACCGGTGATCGTGACCCTGAA
AGAAAATGAAAGATTCTTTGGAGACAGTGCAGCAAGCATGGCGATTAAGAATCCAAAGGCTACGCTACGTTACTT
CCAGCACCTCCTGGGGAAGCAGGCAGATAACCCCCATGTAGCTCTTTACCAGGCCCGCTTCCCGGAGCACGAGCT
GACTTTCGACCCACAGAGGCAGACTGTGCACTTTCAGATCAGCTCGCAGCTGCAGTTCTCACCTGAGGAAGTGTT
GGGCATGGTTCTCAATTATTCTCGTTCTCTAGCTGAAGATTTTGCAGAGCAGCCCATCAAGGATGCAGTGATCAC
CGTGCCAGTCTTCTTCAACCAGGCCGAGCGCCGAGCTGTGCTGCAGGCTGCTCGTATGGCTGGCCTCAAAGTGCT
GCAGCTCATCAATGACAACACCGCCACTGCCCTCAGCTATGGTGTCTTCCGCCGGAAAGATATTAACACCACTGC
CCAGAATATCATGTTCTATGACATGGGCTCAGGCAGCACCGTATGCACCATTGTGACCTACCAGATGGTGAAGAC
TAAGGAAGCTGGGATGCAGCCACAGCTGCAGATCCGGGGAGTAGGATTTGACCGTACCCTGGGGGGCCTGGAGAT
GGAGCTCCGGCTTCGAGAACGCCTGGCTGGGCTTTTCAATGAGCAGCGCAAGGGTCAGAGAGCAAAGGATGTGCG
GGAGAACCCGCGTGCCATGGCCAAGCTGCTGCGTGAGGCTAATCGGCTCAAAACCGTCCTCAGTGCCAACGCTGA
CCACATGGCACAGATTGAAGGCCTGATGGATGATGTGGACTTCAAGGCAAAAGTGACTCGTGTGGAATTTGAGGA
GTTGTGTGCAGACTTGTTTGAGCGGGTGCCTGGGCCTGTACAGCAGGCCCTCCAGAGTGCCGAAATGAGTCTGGA
TGAGATTGAGCAGGTGATCCTGGTGGGTGGGGCCACTCGGGTCCCCAGAGTTCAGGAGGTGCTGCTGAAGGCCGT
GGGCAAGGAGGAGCTGGGGAAGAACATCAATGCAGATGAAGCAGCCGCCATGGGGGCAGTGTACCAGGCAGCTGC
GCTCAGCAAAGCCTTTAAAGTGAAGCCATTTGTCGTCCGAGATGCAGTGGTCTACCCCATCCTGGTGGAGTTCAC
GAGGGAGGTGGAGGAGGAGCCTGGGATTCACAGCCTGAAGCACAATAAACGGGTACTCTTCTCTCGGATGGGGCC
CTACCCTCAACGCAAAGTCATCACCTTTAACCGCTACAGCCATGATTTCAACTTCCACATCAACTACGGCGACCT
GGGCTTCCTGGGGCCTGAAGATCTTCGGGTATTTGGCTCCCAGAATCTGACCACAGTGAAGCTAAAAGGGGTGGG
TGACAGCTTCAAGAAGTATCCTGACTACGAGTCCAAGGGCATCAAGGCTCACTTCAACCTGGATGAGAGTGGCGT
GCTCAGTCTAGACAGGGTGGAGTCTGTATTTGAGACACTGGTAGAGGACAGCGCAGAAGAGGAATCTACTCTCAC
CAAACTTGGCAACACCATTTCCAGCCTGTTTGGAGGCGGTACCACACCAGATGCCAAGGAGAATGGTACTGATAC
TGTCCAGGAGGAAGAGGAGAGCCCTGCAGAGGGGAGCAAGGACGAGCCTGGGGAGCAGGTGGAGCTCAAGGAGGA
AGCTGAGGCCCCAGTGGAGGATGGCTCTCAGCCCCCACCCCCTGAACCTAAGGGAGATGCAACCCCTGAGGGAGA
AAAGGCCACAGAAAAAGAAAATGGGGACAAGTCTGAGGCCCAGAAACCAAGTGAGAAGGCAGAGGCAGGGCCTGA
GGGCGTCGCTCCAGCCCCAGAGGGAGAGAAGAAGCAGAAGCCCGCCAGGAAGCGGCGAATGGTAGAGGAGATCGG
GGTGGAGCTGGTTGTTCTGGACCTGCCTGACTTGCCAGAGGATAAGCTGGCTCAGTCGGTGCAGAAACTTCAGGA
CTTGACACTCCGAGACCTGGAGAAGCAGGAACGGGAAAAAGCTGCCAACAGCTTGGAAGCGTTCATATTTGAGAC
CCAGGACAAGCTGTACCAGCCCGAGTACCAGGAAGTGTCCACAGAGGAGCAGCGTGAGGAGATCTCTGGGAAGCT
CAGCGCCGCATCCACCTGGCTGGAGGATGAGGGTGTTGGAGCCACCACAGTGATGTTGAAGGAGAAGCTGGCTGA
GCTGAGGAAGCTGTGCCAAGGGCTGTTTTTTCGGGTAGAGGAGCGCAAGAAGTGGCCCGAACGGCTGTCTGCCCT
CGATAATCTCCTCAACCATTCCAGCATGTTCCTCAAGGGGGCCCGGCTCATCCCAGAGATGGACCAGATCTTCAC
TGAGGTGGAGATGACAACGTTAGAGAAAGTCATCAATGAGACCTGGGCCTGGAAGAATGCAACTCTGGCCGAGCA
GGCTAAGCTGCCCGCCACAGAGAAGCCTGTGTTGCTCTCAAAAGACATTGAAGCTAAGATGATGGCCCTGGACCG
AGAGGTGCAGTATCTGCTCAATAAGGCCAAGTTTACCAAGCCCCGGCCCCGGCCTAAGGACAAGAATGGGACCCG
GGCAGAGCCACCCCTCAATGCCAGTGCCAGTGACCAGGGGGAGAAGGTCATCCCTCCAGCAGGCCAGACTGAAGA
TGCAGAGCCCATTTCAGAACCTGAGAAAGTAGAGACTGGATCCGAGCCAGGAGACACTGAGCCTTTGGAGTTAGG
AGGTCCTGGAGCAGAACCTGAACAGAAAGAACAATCGACAGGACAGAAGCGGCCTTTGAAGAACGACGAACTA**TA**
ACCCCCACCTCTGTTTTCCCCATTCATCTCCACCCCCTTCCCCCACCACTTCTATTTATTTAACATCGAGGGTTG
GGGGAGGGGGTTGGTCCTGCCCTCGGCTGGAGTTCCTTTCTCACCCCTGTGATTTGGAGGTGTGGAGAAGGGGAAG
GGAGGGACAGCTCACTGGTTCCTTCTGCAGTACCTCTGTGGTTAAAAATGGAAACTGTTCTCCTCCCCAGCCCCA
CTCCCTGTTCCCTACCCATATAGGCCCTAAATTTGGGAAAAATCACTATTAATTTCTGAATCCTTTGCCTGTGGG
TAGGAAGAGAATGGCTGCCAGTGGCTGATGGGTCCCGGTGATGGGAAGGGTATCAGGTTGCTGGGGAGTTTCCAC
TCTTCTCTGGTGATTGTTCCTTCCCTCCCTTCCTCTCCCACCATGCGATGAGCATCCTTTCAGGCCAGTGTCTGC

FIGURE 43B

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AGAGCCTCAGTTACCAGGTTTGGTTTCTGAGTGCCTATCTGTGCTCTTTCCTCCCTCTGCGGGCTTCTCTTGCTC
TGAGCCTCCCTTCCCCATTCCCATGCAGCTCCTTTCCCCCTGGGTTTCCTTGGCTTCCTGCAGCAAATTGGGCAG
TTCTCTGCCCCTTGCCTAAAAGCCTGTACCTCTGGATTGGCGGAAGTAAATCTGGAAGGATTCTCACTCGTATTT
CCCACCCCTAGTGGCCAGAGGAGGGAGGGGCACAGTGAAGAAGGGAGCCCACCACCTCTCCGAAGAGGAAAGCCA
CGTAGAGTGGTTGGCATGGGGTGCCAGCATCGTGCAAGCTCTGTCATAATCTGCATCTTCCCAGCAGCCTGGTAC
CCCAGGTTCCTGTAACTCCCTGCCTCCTCCTCTCTTCTGCTGTTCTGCTCCTCCCAGACAGAGCCTTTCCCTCAC
CCCCTGACCCCCTGGGCTGACCAAAATGTGCTTTCTACTGTGAGTCCCTATCCCAAGATCCTGGGGAAAGGAGAG
ACCATGGTGTGAATGTAGAGATGCCACCTCCCTCTCTCTGAGGCAGGCCTGTGGATGAAGGAGGAGGGTCAGGGC
TGGCCTTCCTCTGTGCATCACTCTGCTAGGTTGGGGGCCCCCGACCCACCATACCTACGCCTAGGGAGCCCGTCC
TCCAGTATTCCGTCTGTAGCAGGAGCTAGGGCTGCTGCCTCAGCTCCAAGACAAGAATGAACCTGGCTGTGTCAG
TCATTTTGTCTTTTCCTTTTTTTTTTTTGCCACATTGGCAGAGATGGGACCTAAGGGTCCCACCCCTCACCCCA
CCCCCACCTCTTCTGTATGTTTGAATTCTTTCAGTAGCTGTTGATGCTGGTTGGACAGGTTTGAGTCAAATTGTA
CTTTGCTCCATTGTTAATTGAGAAACTGTTTCAATAAAATATTCTTTTCTAC
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FIGURE 44

MADKVRRQRPRRRVCWALVAVLLADLLALSDTLAVMSVDLGSESMKVAIVKPGVPMEIVLNKESRRKTPVIVTLK
ENERFFGDSAASMAIKNPKATLRYFQHLLGKQADNPHVALYQARFPEHELTFDPQRQTVHFQISSQLQFSPEEVL
GMVLNYSRSLAEDFAEQPIKDAVITVPVFFNQAERRAVLQAARMAGLKVLQLINDNTATALSYGVFRRKDINTTA
QNIMFYDMGSGSTVCTIVTYQMVKTKEAGMQPQLQIRGVGFDRTLGGLEMELRLRERLAGLFNEQRKGQRAKDVR
ENPRAMAKLLREANRLKTVLSANADHMAQIEGLMDDVDFKAKVTRVEFEELCADLFERVPGPVQQALQSAEMSLD
EIEQVILVGGATRVPRVQEVLLKAVGKEELGKNINADEAAAMGAVYQAAALSKAFKVKPFVVRDAVVYPILVEFT
REVEEEPGIHSLKHNKRVLFSRMGPYPQRKVITFNRYSHDFNFHINYGDLGFLGPEDLRVFGSQNLTTVKLKGVG
DSFKKYPDYESKGIKAHFNLDESGVLSLDRVESVFETLVEDSAEEESTLTKLGNTISSLFGGGTTPDAKENGTDT
VQEEEESPAEGSKDEPGEQVELKEEAEAPVEDGSQPPPPEPKGDATPEGEKATEKENGDKSEAQKPSEKAEAGPE
GVAPAPEGEKKQKPARKRRMVEEIGVELVVLDLPDLPEDKLAQSVQKLQDLTLRDLEKQEREKAANSLEAFIFET
QDKLYQPEYQEVSTEEQREEISGKLSAASTWLEDEGVGATTVMLKEKLAELRKLCQGLFFRVEERKKWPERLSAL
DNLLNHSSMFLKGARLIPEMDQIFTEVEMTTLEKVINETWAWKNATLAEQAKLPATEKPVLLSKDIEAKMMALDR
EVQYLLNKAKFTKPRPRPKDKNGTRAEPPLNASASDQGEKVIPPAGQTEDAEPISEPEKVETGSEPGDTEPLELG
GPGAEPEQKEQSTGQKRPLKNDEL

FIGURE 45

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ATACACGTGCCATGTGCAGCATGAGGGGCTACCCGAGCCCGTCACCCTGAGATGGAAGCCGGCTTCCCAGCCCAC
CATCCCCATCGTGGGCATCATTGCTGGCCTGGTTCTCCTTGGATCTGTGGTCTCTGGAGCTGTGGTTGCTGCTGT
GATATGGAGGAAGAAGAGCTCAGGTGGAAAAGGAGGGAGCTACTCTAAGGCTGAGTGGAGCGACAGTGCCCAGGG
GTCTGAGTCTCACAGCTTGTAAAGCCTGAGACAGCTGCCTTGTGTGCGACTGAGATGCACAGCTGCCTTGTGTGC
GACTGAGATGCAGGATTTCCTCACGCCTCCCCTATGTGTCTTAGGGGACTCTGGCTTCTCTTTTTGCAAGGGCCT
CTGAATCTGTCTGTGTCCCTGTTAGCACAATGTGAGGAGGTAGAGAAACAGTCCACCTCTGTGTCTACCATGACC
CCCTTCCTCACACTGACCTGTGTTCCTTCCCTGTTCTCTTTTCTATTAAAAATAAGAACCTGGGCAGAGTGCGGC
AGCTCATGCCTGTAATCCCAGCACTTAGGGAGGCCGAGGAGGGCAGATCACGAGGTCAGGAGATCGAAACCATCC
TGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAATACAAAAAATTAGCTGGGCGCAGAGGCACGGGCCTGTAG
TCCCAGCTACTCAGGAGGCGGAGGCAGGAGAATGGCGTCAACCCGGGAGGCGGAGGTTGCAGTGAGCCAGGATTG
TGCGACTGCACTCCAGCCTGGGTGACAGGGTGAAACGCCATCTCAAAAAATAAAAATTAAAAAATAAAAAAAGAA
CCTGGATCTCAATTTAATTTTTCATATTCTTGCAATGAAATGGACTTGAGGAAGCTAAGATCATAGCTAGAAATA
CAGATAATTCCACAGCACATCTCTAGCAAATTTAGCCTATTCCTATTCTCTAGCCTATTCCTTACCACCTGTAAT
CTTGACCATATACCTTGGAGTTGAATATTGTTTTCATACTGCTGTGGTTTGAATGTTCCCTCCAACACTCATGTT
GAGACTTAATCCCTAATGTGGCAATACTGAAAGGTGGGGCCTTTGAGATGTGATTGGATCGTAAGGCTGTGCCTT
CATTCATGGGTTAATGGATTAATGGGTTATCACAGGAATGGGACTGGTGGCTTTATAAGAAGAGGAAAAGAGAAC
TGAGCTAGCATGCCCAACCCACAGAGAGCCTCCACTAGAGTGATGCTAAGTGGAAATGTGAGGTGCAGCTGCCAC
AGAGGGCCCCCACCAGGGAAATGTCTAGTGTCTAGTGGATCCAGGCCACAGGAGAGAGTGCCTTGTGGAGCGCTG
GGAGCAGGACCTGACCACCACCAGGACCCCAGAACTGTGGAGTCAGTGGCAGCATGCAGCGCCCCCTTGGGAAAG
CTTTAGGCACCAGCCTGCAACCCATTCGAGCAGCCACGTAGGCTCGACCCAGCAAAGCCACAGGCACGGGGCTAC
CTGAGGCCTTGGGGGCCAATCCCTGCTCCAGTGTGTCCGTGAGGCAGCACACGAAGTCAAAAGAGATTATCTCTT
CCCACAGATACCTTTTCTCTCCCATGACCCTTTAACAGCATCTGCTTCATTCCCCTCACCTTCCCAGGCTGATCT
GAGGTAAACTTTGAAGTAAAATAAAAGCTGTGTTTGAGCATC
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FIGURE 46

CCTCTCGGAGCTGGAAATGCAGCTATTGAGATCTTCGAATGCTGCGGAGCTGGAGGCGGAGGCAGCTGGGGAGGT
CCGAGCGATGTGACCAGGCCGCCATCGCTCGTCTCTTCCTCTCTCCTGCCGCCTCCTGTGTCGAAAATAACTTTT
TTAGTCTAAAGAAAGAAAGACAAAAGTAGTCGTCCGCCCCTCACGCCCTCTCTTCCTCTCAGCCTTCCGCCCGGT
GAGGAAGCCCGGGGTGGCTGCTCCGCCGTCGGGGCCGCGCCGCCGAGCCCCAGCGCCCCGGGCCGCCCCCGCACG
CCGCCCCC**ATG**CATCCCTTCTACACCCGGGCCGCCACCATGATAGGCGAGATCGCCGCCGCCGTGTCCTTCATCT
CCAAGTTTCTCCGCACCAAGGGGCTGACGAGCGAGCGACAGCTGCAGACCTTCAGCCAGAGCCTGCAGGAGCTGC
TGGCAGAACATTATAAACATCACTGGTTCCCAGAAAAGCCATGCAAGGGATCGGGTTACCGTTGTATTCGCATCA
ACCATAAAATGGATCCTCTGATTGGACAGGCAGCACAGCGGATTGGACTGAGCAGTCAGGAGCTGTTCAGGCTTC
TCCCAAGTGAACTCACACTCTGGGTTGACCCCTATGAAGTGTCCTACAGAATTGGAGAGGATGGCTCCATCTGTG
TGCTGTATGAAGCCTCACCAGCAGGAGGTAGCACTCAAAACAGCACCAACGTGCAAATGGTAGACAGCCGAATCA
GCTGTAAGGAGGAACTTCTCTTGGGCAGAACGAGCCCTTCCAAAAACTACAATATGATGACTGTATCAGGT**TAA**G
ATATAGTCTGTGGATGGATCATCTGATGATGATCCATAAATTTGATTTTTGCTTTGGGTGGGCTCCTCTTGGGGA
TGGATTATGGAATTTAAACCATGTCACAGCTGTGAAGATCTGGCACAAGATAGAATGGTAAAAAAAAAAAAAAAT
TTTAAGTGACAGTGCCATAGTTTGGACAGTACCTTTCAATGATTAATTTTAATAGCCTGTGAGTCCAAGTAAATG
ATCACTTTATTTGCTAGGGAGGGAAGTCCTAGGGTGGTTTCAGTTTCTCCCAGACATACCTAAATTTTTACATCA
ATCCTTTTAAAGAAAATCTGTATTTCAAAGAATCTTTCTCTGCAGTAAATCTCGCAGGGGAATTTGCACTATTAC
ACTTGAAAGTTGTTATTGTTAACCTTTTCGGCAGCTTTTAATAGGAAAGTTAAACGTTTTAAACATGGTAGTACT
GGAAATTTTACAAGACTTTTACCTAGCACTTAAATATGTATAAATGTACATAAAGACAAACTAGTAAGCATGACC
TGGGGAAATGGTCAGACCTTGTATTGTGTTTTTGGCCTTGAAAGTAGCAAGTGACCAGAATCTGCCATGGCAACA
GGCTTTAAAAAAGACCCTTAAAAAGACACTGTCTCAACTGTGGTGTTAGCACCAGCCAGCTCTCTGTACATTTGC
TAGCTTGTAGTTTTCTAAGACTGAGTAAACTTCTTATTTTTAGAAAGTGGAGGTCTGGTTTGTAACTTTCCTTGT
ACTTAATTGGGTAAAAGTCTTTTCCACAAACCACCATCTATTTTGTGAACTTTGTTAGTCATCTTTTATTTGGTA
AATTATGAACTGGTGTAAATTTGTACAGTTCATGTATATTGATTGTGGCAAAGTTGTACAGATTTCTATATTTTG
GATGAGAAATTTTTCTTCTCTCTATAATAAATCGTTTCTTATCTTGGCATTTTAACC

FIGURE 47

MHPFYTRAATMIGEIAAAVSFISKFLRTKGLTSERQLQTFSQSLQELLAEHYKHHWFPEKPCKGSGYRCIRINHK
MDPLIGQAAQRIGLSSQELFRLLPSELTLWVDPYEVSYRIGEDGSICVLYEASPAGGSTQNSTNVQMVDSRISCK
EELLLGRTSPSKNYNMMTVSG

FIGURE 48

GGCACGAGGACCGACCGCATTGCGGCTTGGTTTTCTCACCCAGTGCATGTGGCAGGAGCGGTGAGATCACTGCCT
CACGGCGATCCTGGACTGACGGTCACGACTGCCTACCCTCTAACCCTGTTCTGAGCTGCCCCTTGCCCACACACC
CCAAACCTGTGTGCAGGATCCGCCTCCATGGAGCTACAGCCTCCTGAAGCCTCGATCGCCGTCGTGTCGATTCCG
CGCCAGTTGCCTGGCTCACATTCGGAGGCTGGTGTCCAGGGTCTCAGCGCGGGGGACGACTCAGAGTTGGGGTCT
CACTGTGTTGCCCAGACTGGTCTCGAACTCTTGGCCTCAGGTGATCCTCTTCCCTCAGCTTCCCAGAATGCCGAG
ATGATAGAGACGGGGTCTGACTGTGTTACCCAGGCTGGTCTTCAACTCTTGGCCTCAAGTGATCCTCCTGCCTTA
GCTTCCAAGAATGCTGAGGTTACAGGCACC**ATG**AGCCAGGACACCGAGGTGGATATGAAGGAGGTGGAGCTGAAT
GAGTTAGAGCCCGAGAAGCAGCCGATGAACGCGGCGTCTGGGGCGGCCATGTCCCTGGCGGGAGCCGAGAAGAAT
GGTCTGGTGAAGATCAAGGTGGCGGAAGACGAGGCGGAGGCGGCAGCCGCGGCTAAGTTCACGGGCCTGTCCAAG
GAGGAGCTGCTGAAGGTGGCAGGCAGCCCCGGCTGGGTACGCACCCGCTGGGCACTGCTGCTGCTCTTCTGGCTC
GGCTGGCTCGGCATGCTTGCTGGTGCCGTGGTCATAATCGTGCGAGCGCCGCGTTGTCGCGAGCTACCGGCGCAG
AAGTGGTGGCACACGGGCGCCCTCTACCGCATCGGCGACCTTCAGGCCTTCCAGGGCCACGGCGCGGGCAACCTG
GCGGGTCTGAAGGGGCGTCTCGATTACCTGAGCTCTCTGAAGGTGAAGGGCCTTGTGCTGGGTCCAATTCACAAG
AACCAGAAGGATGATGTCGCTCAGACTGACTTGCTGCAGATCGACCCCAATTTTGGCTCCAAGGAAGATTTTGAC
AGTCTCTTGCAATCGGCTAAAAAAAAGAGCATCCGTGTCATTCTGGACCTTACTCCCAACTACCGGGGTGAGAAC
TCGTGGTTCTCCACTCAGGTTGACACTGTGGCCACCAAGGTGAAGGATGCTCTGGAGTTTTGGCTGCAAGCTGGC
GTGGATGGGTTCCAGGTTCGGGACATAGAGAATCTGAAGGATGCATCCTCATTCTTGGCTGAGTGGCAAAATATC
ACCAAGGGCTTCAGTGAAGACAGGCTCTTGATTGCGGGGACTAACTCCTCCGACCTTCAGCAGATCCTGAGCCTA
CTCGAATCCAACAAAGACTTGCTGTTGACTAGCTCATACCTGTCTGATTCTGGTTCTACTGGGGAGCATACAAAA
TCCCTAGTCACACAGTATTTGAATGCCACTGGCAATCGCTGGTGCAGCTGGAGTTTGTCTCAGGCAAGGCTCCTG
ACTTCCTTCTTGCCGGCTCAACTTCTCCGACTCTACCAGCTGATGCTCTTCACCCTGCCAGGGACCCCTGTTTTC
AGCTACGGGGATGAGATTGGCCTGGATGCAGCTGCCCTTCCTGGACAGCCTATGGAGGCTCCAGTCATGCTGTGG
GATGAGTCCAGCTTCCCTGACATCCCAGGGGCTGTAAGTGCCAACATGACTGTGAAGGGCCAGAGTGAAGACCCT
GGCTCCCTCCTTTCCTTGTTCCGGCGGCTGAGTGACCAGCGGAGTAAGGAGCGCTCCCTACTGCATGGGGACTTC
CACGCGTTCTCCGCTGGGCCTGGACTCTTCTCCTATATCCGCCACTGGGACCAGAATGAGCGTTTTCTGGTAGTG
CTTAACTTTGGGGATGTGGGCCTCTCGGCTGGACTGCAGGCCTCCGACCTGCCTGCCAGCGCCAGCCTGCCAGCC
AAGGCTGACCTCCTGCTCAGCACCCAGCCAGGCCGTGAGGAGGGCTCCCCTCTTGAGCTGGAACGCCTGAAACTG
GAGCCTCACGAAGGGCTGCTGCTCCGCTTCCCCTACGCGGCC**TGA**CTTCAGCCTGACATGGACCCACTACCCTTC
TCCTTTCCTTCCCAGGCCCTTTGGCTTCTGATTTTTCTCTTTTTTAAAAACAAACAAACAAACTGTTGCAAAAAA
AAAAAAAAAAAAA

FIGURE 49

MSQDTEVDMKEVELNELEPEKQPMNAASGAAMSLAGAEKNGLVKIKVAEDEAEAAAAAKFTGLSKEELLKVAGSP
GWVRTRWALLLLFWLGWLGMLAGAVVIIVRAPRCRELPAQKWWHTGALYRIGDLQAFQGHGAGNLAGLKGRLDYL
SSLKVKGLVLGPIHKNQKDDVAQTDLLQIDPNFGSKEDFDSLLQSAKKKSIRVILDLTPNYRGENSWFSTQVDTV
ATKVKDALEFWLQAGVDGFQVRDIENLKDASSFLAEWQNITKGFSEDRLLIAGTNSSDLQQILSLLESNKDLLLT
SSYLSDSGSTGEHTKSLVTQYLNATGNRWCSWSLSQARLLTSFLPAQLLRLYQLMLFTLPGTPVFSYGDEIGLDA
AALPGQPMEAPVMLWDESSFPDIPGAVSANMTVKGQSEDPGSLLSLFRRLSDQRSKERSLLHGDFHAFSAGPGLF
SYIRHWDQNERFLVVLNFGDVGLSAGLQASDLPASASLPAKADLLLSTQPGREEGSPLELERLKLEPHEGLLLRF
PYAA

FIGURE 50

GTCCGTACTGCAGAGCCGCTGCCGGAGGGTCGTTTTAAAGGGCCGCGTTGCCGCCCCCTCGGCCCGCC**ATG**CTGC
TATCCGTGCCGCTGCTGCTCGGCCTCCTCGGCCTGGCCGTCGCCGAGCCCGCCGTCTACTTCAAGGAGCAGTTTC
TGGACGGAGACGGGTGGACTTCCCGCTGGATCGAATCCAAACACAAGTCAGATTTTGGCAAATTCGTTCTCAGTT
CCGGCAAGTTCTACGGTGACGAGGAGAAAGATAAAGGTTTGCAGACAAGCCAGGATGCACGCTTTTATGCTCTGT
CGGCCAGTTTCGAGCCTTTCAGCAACAAAGGCCAGACGCTGGTGGTGCAGTTCACGGTGAAACATGAGCAGAACA
TCGACTGTGGGGGCGGCTATGTGAAGCTGTTTCCTAATAGTTTGGACCAGACAGACATGCACGGAGACTCAGAAT
ACAACATCATGTTTGGTCCCGACATCTGTGGCCCTGGCACCAAGAAGGTTCATGTCATCTTCAACTACAAGGGCA
AGAACGTGCTGATCAACAAGGACATCCGTTGCAAGGATGATGAGTTTACACACCTGTACACACTGATTGTGCGGC
CAGACAACACCTATGAGGTGAAGATTGACAACAGCCAGGTGGAGTCCGGCTCCTTGGAAGACGATTGGGACTTCC
TGCCACCCAAGAAGATAAAGGATCCTGATGCTTCAAAACCGGAAGACTGGGATGAGCGGGCCAAGATCGATGATC
CCACAGACTCCAAGCCTGAGGACTGGGACAAGCCCGAGCATATCCCTGACCCTGATGCTAAGAAGCCCGAGGACT
GGGATGAAGAGATGGACGGAGAGTGGGAACCCCCAGTGATTCAGAACCCTGAGTACAAGGGTGAGTGGAAGCCCC
GGCAGATCGACAACCCAGATTACAAGGGCACTTGGATCCACCCAGAAATTGACAACCCCGAGTATTCTCCCGATC
CCAGTATCTATGCCTATGATAACTTTGGCGTGCTGGGCCTGGACCTCTGGCAGGTCAAGTCTGGCACCATCTTTG
ACAACTTCCTCATCACCAACGATGAGGCATACGCTGAGGAGTTTGGCAACGAGACGTGGGGCGTAACAAAGGCAG
CAGAGAAACAAATGAAGGACAAACAGGACGAGGAGCAGAGGCTTAAGGAGGAGGAAGAAGACAAGAAACGCAAAG
AGGAGGAGGAGGCAGAGGACAAGGAGGATGATGAGGACAAAGATGAGGATGAGGAGGATGAGGAGGACAAGGAGG
AAGATGAGGAGGAAGATGTCCCCGGCCAGGCCAAGGACGAGCTG**TAG**AGAGGCCTGCCTCCAGGGCTGGACTGAG
GCCTGAGCGCTCCTGCCGCAGAGCTTGCCGCGCCAAATAATGTCTCTGTGAGACTCGAGAACTTTCATTTTTTTC
CAGGCTGGTTCGGATTTGGGGTGGATTTTGGTTTTGTTCCCTCCTCCACTCTCCCCCACCCCTCCCCGCCCTT
TTTTTTTTTTTTTTTTAAACTGGTATTTTATCCTTTGATTCTCCTTCAGCCCTCACCCCTGGTTCTCATCTTTCTT
GATCAACATCTTTTCTTGCCTCTGTGCCCCTTCTCTCATCTCTTAGCTCCCCTCCAACCTGGGGGGCAGTGGTGT
GGAGAAGCCACAGGCCTGAGATTTCATCTGCTCTCCTTCCTGGAGCCCAGAGGAGGGCAGCAGAAGGGGGTGGTG
TCTCCAACCCCCCAGCACTGAGGAAGAACGGGGCTCTTCTCATTTCACCCCTCCCTTTCTCCCCTGCCCCCAGGA
CTGGGCCACTTCTGGGTGGGGCAGTGGGTCCCAGATTGGCTCACACTGAGAATGTAAGAACTACAAACAAAATTT
CTATTAAATTAAATTTTGTGTCTC

FIGURE 51

MLLSVPLLLGLLGLAVAEPAVYFKEQFLDGDGWTSRWIESKHHKSDFGKFVLSSGKFYGDEEKDKGLQTSQDARFY
ALSASFEPFSNKGQTLVVQFTVKHEQNIDCGGGYVKLFPNSLDQTDMHGDSEYNIMFGPDICGPGTKKVHVIFNY
KGKNVLINKDIRCKDDEFTHLYTLIVRPDNTYEVKIDNSQVESGSLEDDWDFLPPKKIKDPDASKPEDWDERAKI
DDPTDSKPEDWDKPEHIPDPDAKKPEDWDEEMDGEWEPPVIQNPEYKGEWKPRQIDNPDYKGTWIHPEIDNPEYS
PDPSIYAYDNFGVLGLDLWQVKSGTIFDNFLITNDEAYAEEFGNETWGVTKAAEKQMKDKQDEEQRLKEEEEDKK
RKEEEEAEDKEDDEDKDEDEEDEEDKEEDEEEDVPGQAKDEL

FIGURE 52A

AGAGCGAGCAGGGGAGAGCGAGACCAGTTTTAAGGGGAGGACCGGTGCGAGTGAGGCAGCCCCGAGGCTCTGCTC
GCCCACCACCCAATCCTCGCCTCCCTTCTGCTCCACCTTCTCTCTCTGCCCTCACCTCTCCCCGAAAACCCCCT
ATTTAGCCAAAGGAAGGAGGTCAGGGGAACGCTCTCCCCTCCCCTTCCAAAAAACAAAAACAGAAAAACCCTTTT
CCAGGCCGGGGAAAGCAGGAGGGAGAGGGGCCGCCGGGCTGGCC**ATG**GAGCTGCTGTGCCACGAGGTGGACCCGG
TCCGCAGGGCCGTGCGGGACCGCAACCTGCTCCGAGACGACCGCGTCCTGCAGAACCTGCTCACCATCGAGGAGC
GCTACCTTCCGCAGTGCTCCTACTTCAAGTGCGTGCAGAAGGACATCCAACCCTACATGCGCAGAATGGTGGCCA
CCTGGATGCTGGAGGTCTGTGAGGAACAGAAGTGCGAAGAAGAGGTCTTCCCTCTGGCCATGAATTACCTGGACC
GTTCTTGGCTGGGGTCCCGACTCCGAAGTCCCATCTGCAACTCCTGGGTGCTGTCTGCATGTTCCTGGCCTCCA
AACTCAAAGAGACCAGCCCGCTGACCGCGGAGAAGCTGTGCATTTACACCGACAACTCCATCAAGCCTCAGGAGC
TGCTGGAGTGGGAACTGGTGGTGCTGGGGAAGTTGAAGTGGAACCTGGCAGCTGTCACTCCTCATGACTTCATTG
AGCACATCTTGCGCAAGCTGCCCCAGCAGCGGGAGAAGCTGTCTCTGATCCGCAAGCATGCTCAGACCTTCATTG
CTCTGTGTGCCACCGACTTTAAGTTTGCCATGTACCCACCGTCGATGATCGCAACTGGAAGTGTGGGAGCAGCCA
TCTGTGGGCTCCAGCAGGATGAGGAAGTGAGCTCGCTCACTTGTGATGCCCTGACTGAGCTGCTGGCTAAGATCA
CCAACACAGACGTGGATTGTCTCAAAGCTTGCCAGGAGCAGATTGAGGCGGTGCTCCTCAATAGCCTGCAGCAGT
ACCGTCAGGACCAACGTGACGGATCCAAGTCGGAGGATGAACTGGACCAAGCCAGCACCCCTACAGACGTGCGGG
ATATCGACCTG**TGA**GGATGCCAGTTGGGCCGAAAGAGAGAGACGCGTCCATAATCTGGTCTCTTCTTCTTTCTGG
TTGTTTTTGTTCTTTGTGTTTTAGGGTGAAACTTAAAAAAAAAATTCTGCCCCCACCTAGATCATATTTAAAGAT
CTTTTAGAAGTGAGAGAAAAAGGTCCTACGAAAACGGAATAATAAAAAGCATTTGGTGCCTATTTGAAGTACAGC
ATAAGGGAATCCCTTGTATATGCGAACAGTTATTGTTTGATTATGTAAAAGTAATAGTAAAATGCTTACAGGAAA
ACCTGCAGAGTAGTTAGAGAATATGTATGCCTGCAATATGGGAACAAATTAGAGGAGACTTTTTTTTTCATGTT
ATGAGCTAGCACATACACCCCCTTGTAGTATAATTTCAAGGAACTGTGTACGCCATTTATGGCATGATTAGATTG
CAAAGCAATGAACTCAAGAAGGAATTGAAATAAGGAGGGACATGATGGGGAAGGAGTACAAAACAATCTCTCAAC
ATGATTGAACCATTTGGGATGGAGAAGCACCTTTGCTCTCAGCCACCTGTTACTAAGTCAGGAGTGTAGTTGGAT
CTCTACATTAATGTCCTCTTGCTGTCTACAGTAGCTGCTACCTAAAAAAAGATGTTTATTTTGCCAGTTGGACA
CAGGTGATTGGCTCCTGGGTTTCATGTTCTGTGACATCCTGCTTCTTCTTCCAAATGCAGTTCATTGCAGACACC
ACCATATTGCTATCTAATGGGGAAATGTAGCTATGGGCCATAACCAAAACTCACATGAAACGGAGGCAGATGGAG
ACCAAGGGTGGGATCCAGAATGGAGTCTTTTCTGTTATTGTATTTAAAAGGGTAATGTGGCCTTGGCATTTCTTC
TTAGAAAAAAACTAATTTTTGGTGCTGATTGGCATGTCTGGTTCACAGTTTAGCATTGTTATAAACCATTCCATT
CGAAAAGCACTTTGAAAAATTGTTCCCGAGCGATAGATGGGATGGTTTATGCAAGTCATGCTGAATACTCCTCCC
CTCTTCTCTTTTGCCCCCTCCCTTCCTGCCCCCAGTCTGGGTTACTCTTCGCTTCTGGTATCTGGCGTTCTTTGG
TACACAGTTCTGGTGTTCCTACCAGGACTCAAGAGACACCCCTTCCTGCTGACATTCCCATCACAACATTCCTCA
GACAAGCCTGTAAACTAAAATCTGTTACCATTCTGATGGCACAGAAGGATCTTAATTCCCATCTCTATACTTCTC
CTTTGGACATGGAAAGAAAAGTTATTGCTGGTGCAAAGATAGATGGCTGAACATCAGGGTGTGGCATTTTGTTCC
CTTTTCCGTTTTTTTTTTTTTTATTGTTGTTGTTAATTTTATTGCAAAGTTGTATTCAGCGTACTTGAATTTTTC
TTCCTCTCCACTTCTTAGAGGCATTCAGTTAGCAAAGAGGTTGGAGCAACAACTTTTTTTTTTTTTTGCACAA
TTGTAATTGACAGGTAATGAAGCTATTTGTTAAAATATTTGCCTTTTTAAGTAAAAAAGAAAAATCAGAACAGGG
CTATTTGAAGAATTATTTTATACACAGATTCTGCCTTGTTTCATAGTATGAGGGTTGAAGACGGAAAACAATCTA
AGGGTCTCTCATTTTTTTAATTTTGTTTTGTTCAGTTTGGTTTTTTTTTTTTTTGCGCTGCTAAGAAGCTAAAG
TCATCCATCCTTATTCACGTTGACAGTACCTAGCTGTAATGTTTCACAGAGTGTGCTGCTATTTTATAAACATTT
TTATAATATATTATTTTACTGCTTAAATTCCAAGTCCTGAAGTAGATGGTTGAGATATGAGTTCTTCGTACTGGA
AAAGCCCTTCCGTAGTTTGTTTTCTTCTGGTAGCATATTCATGGTTGTTTTTTTTTTTCTTTTTTGGTTTTTTGG
TTTTTTTTTTTCCTCTGATCACATTCTTCAAAGACGGAGTATTCTTTACCTCAGGTTTACTGGACAAAATCAAT
AACTACAAAAGGCAATGATTCACGCTTTTGTTTTCATAATACCTCACAACCGTACAGTTTCTGCTTGGGAGCCCA
TTCGCATGAGGAATACAGAAGCAGTGTGAGCAGGGCTGACTCCCTCTCAGGTGGAAGGCAGGCGGTCTCACTCC
CAGGGACCTTTTTGGTCATGGAGGCCATCGGGCTCCCAGTTAGACCCTGGTATCCTCATCATGATGGAAAAAATA
CATTGAACCAAGGGATCCTCCCTCCCCTTCAAGGCAGACGTTCAGTACAAACATTTATGCGGTAGGCTCAGATGT
CGTAATTTGCACTTAGGTACCAGGTGTCAGGAAACAGACTAAAAAGAATTCCACCAGGCTGTTTGGAGATCCTCA
TCTTGGAGCTTTTTCAAAAGCGGGGCTTCATCTGCAAAGGGCCCTTTCATCTTGAAGTTTTTCCCCTCCGTCTTT

FIGURE 52B

CCCCTCCCCTGGCATGGACACCTTGTGTTTAGGATCATCTCTGCAGGTTTCCTAGGTCTGAATCTGCGAGTAGAT
GAACCTGCAGCAAGCAGCGTTTATGGTGCTTCCTTCTCCCTCCTCTGTCTCAAACTGCGCAGGCAAGCACTATGC
AAGCCCAGGCCCTCTGCTGAGCGGTACTAAACGGTCGGGTTTTCAATCACACTGAATTGGCAGGATAAGAAAAAT
AGGTCAGATAAGTATGGGATGATAGTTGAAGGGAGGTGAAGAGGCTGCTTCTCTACAGAGGTGAAATTCCAGATG
AGTCAGTCTCTTGGGAAGTGTGTTTAGAAGGGTTCAGGACTTTGTGAGTTAGCATGACCCTAAAATTCTAGGGGA
TTTCTGGTGGGACAATGGGTGGTGAATTTTGAAGTTTTGGAGAGGGAAGTGGAGCAGCCAGCAAGTAAGCTAGCC
AGAGTTTTCTCAAGAGCCAGCTTTGCTCAGCACACTCTCCTGGGCCCCAAGGAGTCCCACGGAATGGGGAAAGTG
GGAACCCTGGAGTTCTTGGGAATCTTGGAGCCTAAAGAGAAACCGAGGTGCAAATTCATTTCATGGTGACTGACC
CTTGAGCTTAAACAGAAGCAGCAAATGAAAGAACCGGACAAATAAGGAAGGGCACAAGCCTACCCGACTCTATTT
ACAGTCTGTAACTTTCCACTCTTCCTGTAGTCCCGAGGCCCCTGGGTCCTTCTAGCTTTTCTCTTTCCCATCCTT
GGGGCCTTGTGTGATGATGGGTGTGGGGCTGCCGATGGGAAAGTCGGGGGTTGTTAGGCTTTTCTGCCTGCTCCT
GCTTAAACACAAGAAGGAATCCTGGATTTTGCCCTCTCCTTAGCTCTTAGTCTCTTTGGTAGGAGTTTTGTTCCA
GAGGAGCTCTCCCCCTTGGATTTGAACTTGCTCTTTTTGTTGTTGTTGTTCTTTCTCTTCTTTTTCTTACCTCCC
ACTAAAGGGGTTCCAAATTATCCTGGTCTTTTTCTACCTTGTTGTGTTTCTATCTCGTCTTTACTTCCATCTGTT
TGTTTTTTTCTCCATCAGTGGGGGCCGAGTTGTTCCCCCAGCCTGCCAAATTTTGATCCTTCCCCTCTTTTGGCC
AAATCCTAGGGGGAAGAAATCCTAGTATGCCAAAAATATATGCTAAGCATAATTAAACTCCATGCGGGTCCATAA
CAGCCAAGAAGCCTGCAGGAGAAAGCCAAGGGCAGTTCCCTCCGCAGAACACCCCATGCGTGCTGAGAGGCGAGC
TCCTTGAAGAAGGGGCTGTTCTTCCAGGAGGCCTTATTTTGAACTGCCTCAGGACCCCACTGGAGAGCACAGCAT
GCCTTACTACTGGGTCATCCTTGGTCTATGTGCTCTGTACTGGAGGCTCTGTTCTGCCTCTTATCAGCCAGGTCA
GGGGCACACATGGCTTAAGTGACAAAGCCAGAGGAGAAGACAACCCTGACAGCATCACGCTGCATCCCATTGCTA
GCAGGATTGGCAACTCTTCAGACGGAGCTGCGCTTCCCTGCAGTCTAGCACCTCTAGGGCCTCTCCAGACTGTGC
CCTGGGAGCTCTGGGACTGAAAGGTTAAGAACATAAGGCAGGATCAGATGACTCTCTCCAAGAGGGCAGGGGAAT
TTTCTCTCCATGGGCCACAGGGGACAGGGCTGGGAGAAGAAATAGACTTGCACCTTATGTCATGTAAATAATTGA
TTTTCTAGTTCAAGAAGATAATATTGGTAGTGTGGGAATTGGAGGTAGGAAGGGGAGGAAGTCTGAGTAAGCCAG
TTGGCTTCTAAGCCAAAAGGATTCCTCTTTGTTTATCTCTGAGACAGTCCAACCTTGAGAATAGCTTTAAAAGGG
AAATTAATGCTGAGATGATAAAGTCCCCTTAAGCCAACAAACCCTCTGTAGCTATAGAATGAGTGCAGGTTTCTA
TTGGTGTGGACTCAGAGCAATTTACAAGAGCTGTTCATGCAGCCATCCATTTGTGCAAAATAGGGTAAGAAGATT
CAAGAGGATATTTATTACTTCCTCATACCACATGGCTTTTGATGATTCTGGATTCTAAACAACCCAGAATGGTCA
TTTCAGGCACAACGATACTACATTCGTGTGTGTCTGCTTTTAAACTTGGCTGGGCTATCAGACCCTATTCTCGGC
TCAGGTTTTGAGAAGCCATCAGCAAATGTGTACGTGCATGCTGTAGCTGCAGCCTGCATCCCTTCGCCTGCAGCC
TACTTTGGGGAAATAAAGTGCCTTACTGACTGTAGCCATTACAGTATCCAATGTCTTTGACAGGTGCCTGTCCT
TGAAAAACAAAGTTTCTATTTTTATTTTTAATTGGTTTAGTTCTTAACTGCTGGCCAACTCTTACATCCCCAGCA
AATCATCGGGCCATTGGATTTTTTCCATTATGTTCATCACCCTTATATCATGTACCTCAGATCTCTCTCTCTC
CTCTCTCTCAGTTATATAGTTTCTTGTCTTGGACTTTTTTTTTCTTTTCTTTTTCTTTTTTTTTTGCTTTAAAA
CAAGTGTGATGCCATATCAAGTCCATGTTATTCTCTCACAGTGTACTCTATAAGAGGTGTGGGTGTCTGTTTGGT
CAGGATGTTAGAAAGTGCTGATAAGTAGCATGATCAGTGTATGCGAAAAGGTTTTTAGGAAGTATGGCAAAAATG
TTGTATTGGCTATGATGGTGACATGATATAGTCAGCTGCCTTTTAAGAGGTCTTATCTGTTCAGTGTTAAGTGAT
TTAAAAAAATAATAACCTGTTTTCTGACTAGTTTAAAGATGGATTTGAAAATGGTTTTGAATGCAATTAGGTTAT
GCTATTTGGACAATAAACTCACCTTGACCT

FIGURE 53

MELLCHEVDPVRRAVRDRNLLRDDRVLQNLLTIEERYLPQCSYFKCVQKDIQPYMRRMVATWMLEVCEEQKCEEE
VFPLAMNYLDRFLAGVPTPKSHLQLLGAVCMFLASKLKETSPLTAEKLCIYTDNSIKPQELLEWELVVLGKLKWN
LAAVTPHDFIEHILRKLPQQREKLSLIRKHAQTFIALCATDFKFAMYPPSMIATGSVGAAICGLQQDEEVSSLTC
DALTELLAKITNTDVDCLKACQEQIEAVLLNSLQQYRQDQRDGSKSEDELDQASTPTDVRDIDL

FIGURE 54A

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AGAGCGAGCAGGGGAGAGCGAGACCAGTTTTAAGGGGAGGACCGGTGCGAGTGAGGCAGCCCCGAGGCTCTGCTC
GCCCACCACCCAATCCTCGCCTCCCTTCTGCTCCACCTTCTCTCTCTGCCCTCACCTCTCCCCGAAAACCCCCT
ATTTAGCCAAAGGAAGGAGGTCAGGGGAACGCTCTCCCCTCCCCTTCCAAAAAACAAAAACAGAAAAACCCTTTT
CCAGGCCGGGGAAAGCAGGAGGGAGAGGGGCCGCCGGGCTGGCC**ATG**GAGCTGCTGTGCCACGAGGTGGACCCGG
TCCGCAGGGCCGTGCGGGACCGCAACCTGCTCCGAGACGACCGCGTCCTGCAGAACCTGCTCACCATCGAGGAGC
GCTACCTTCCGCAGTGCTCCTACTTCAAGTGCGTGCAGAAGGACATCCAACCCTACATGCGCAGAATGGTGGCCA
CCTGGATGCTGGAGGTCTGTGAGGAACAGAAGTGCGAAGAAGAGGTCTTCCCTCTGGCCATGAATTACCTGGACC
GTTTCTTGGCTGGGGTCCCGACTCCGAAGTCCCATCTGCAACTCCTGGGTGCTGTCTGCATGTTCCTGGCCTCCA
AACTCAAAGAGACCAGCCCGCTGACCGCGGAGAAGCTGTGCATTTACACCGACAACTCCATCAAGCCTCAGGAGC
TGCTGGAGTGGGAACTGGTGGTGCTGGGGAAGTTGAAGTGGAACCTGGCAGCTGTCACTCCTCATGACTTCATTG
AGCACATCTTGCGCAAGCTGCCCCAGCAGCGGGAGAAGCTGTCTCTGATCCGCAAGCATGCTCAGACCTTCATTG
CTCTGTGTGCCACCGACTTTAAGTTTGCCATGTACCCACCGTCGATGATCGCAACTGGAAGTGTGGGAGCAGCCA
TCTGTGGGCTCCAGCAGGATGAGGAAGTGAGCTCGCTCACTTGTGATGCCCTGACTGAGCTGCTGGCTAAGATCA
CCAACACAGACGTGGATTGTCTCAAAGCTTGCCAGGAGCAGATTGAGGCGGTGCTCCTCAATAGCCTGCAGCAGT
ACCGTCAGGACCAACGTGACGGATCCAAGTCGGAGGATGAACTGGACCAAGCCAGCACCCCTACAGACGTGCGGG
ATATCGACCTG**TGA**GGATGCCAGTTGGGCCGAAAGAGAGAGACGCGTCCATAATCTGGTCTCTTCTTCTTTCTGG
TTGTTTTTGTTCTTTGTGTTTTAGGGTGAAACTTAAAAAAAAAATTCTGCCCCCACCTAGATCATATTTAAAGAT
CTTTTAGAAGTGAGAGAAAAAGGTCCTACGAAAACGGAATAATAAAAAGCATTTGGTGCCTATTTGAAGTACAGC
ATAAGGGAATCCCTTGTATATGCGAACAGTTATTGTTTGATTATGTAAAAGTAATAGTAAAATGCTTACAGGAAA
ACCTGCAGAGTAGTTAGAGAATATGTATGCCTGCAATATGGGAACAAATTAGAGGAGACTTTTTTTTTCATGTT
ATGAGCTAGCACATACACCCCCTTGTAGTATAATTTCAAGGAACTGTGTACGCCATTTATGGCATGATTAGATTG
CAAAGCAATGAACTCAAGAAGGAATTGAAATAAGGAGGGACATGATGGGGAAGGAGTACAAAACAATCTCTCAAC
ATGATTGAACCATTTGGGATGGAGAAGCACCTTTGCTCTCAGCCACCTGTTACTAAGTCAGGAGTGTAGTTGGAT
CTCTACATTAATGTCCTCTTGCTGTCTACAGTAGCTGCTACCTAAAAAAAGATGTTTTATTTTGCCAGTTGGACA
CAGGTGATTGGCTCCTGGGTTTCATGTTCTGTGACATCCTGCTTCTTCTTCCAAATGCAGTTCATTGCAGACACC
ACCATATTGCTATCTAATGGGGAAATGTAGCTATGGGCCATAACCAAAACTCACATGAAACGGAGGCAGATGGAG
ACCAAGGGTGGGATCCAGAATGGAGTCTTTTCTGTTATTGTATTTAAAAGGGTAATGTGGCCTTGGCATTTCTTC
TTAGAAAAAAACTAATTTTTGGTGCTGATTGGCATGTCTGGTTCACAGTTTAGCATTGTTATAAACCATTCCATT
CGAAAAGCACTTTGAAAAATTGTTCCCGAGCGATAGATGGGATGGTTTATGCAAGTCATGCTGAATACTCCTCCC
CTCTTCTCTTTTGCCCCCTCCCTTCCTGCCCCCAGTCTGGGTTACTCTTCGCTTCTGGTATCTGGCGTTCTTTGG
TACACAGTTCTGGTGTTCCTACCAGGACTCAAGAGACACCCCTTCCTGCTGACATTCCATCACAACATTCCTCA
GACAAGCCTGTAAACTAAAATCTGTTACCATTCTGATGGCACAGAAGGATCTTAATTCCCATCTCTATACTTCTC
CTTTGGACATGGAAAGAAAAGTTATTGCTGGTGCAAAGATAGATGGCTGAACATCAGGGTGTGGCATTTTGTTCC
CTTTTCCGTTTTTTTTTTTTTTATTGTTGTTGTTAATTTTATTGCAAAGTTGTATTCAGCGTACTTGAATTTTTC
TTCCTCTCCACTTCTTAGAGGCATTCAGTTAGCAAAGAGGTTGGAGCAACAACTTTTTTTTTTTTTTTGCACAA
TTGTAATTGACAGGTAATGAAGCTATTTGTTAAAATATTTGCCTTTTTAAGTAAAAAAGAAAAATCAGAACAGGG
CTATTTGAAGAATTATTTTATACACAGATTCTGCCTTGTTTCATAGTATGAGGGTTGAAGACGGAAAACAATCTA
AGGGTCTCTCATTTTTTTAATTTTGTTTTGTTCAGTTTGGTTTTTTTTTTTTTGCGCTGCTAAGAAGCTAAAG
TCATCCATCCTTATTCACGTTGACAGTACCTAGCTGTAATGTTTCACAGAGTGTGCTGCTATTTTATAAACATTT
TTATAATATTATTTTACTGCTTAAATTCCAAGTCCTGAAGTAGATGGTTGAGATATGAGTTCTTCGTACTGGA
AAAGCCCTTCCGTAGTTTGTTTTCTTCTGGTAGCATATTCATGGTTGTTTTTTTTTTTCTTTTTTGGTTTTTTGG
TTTTTTTTTTTCCTCTGATCACATTCTTCAAAGACGGAGTATTCTTTACCTCAGGTTTACTGGACAAAATCAAT
AACTACAAAAGGCAATGATTCACGCTTTTGTTTTCATAATACCTCACAACCGTACAGTTTCTGCTTGGGAGCCCA
TTCGCATGAGGAATACAGAAGCAGTGTGAGCAGGGCTGACTCCCTCTCAGGTGGAAGGCAGGCGGTCTCACTCC
CAGGGACCTTTTTGGTCATGGAGGCCATCGGGCTCCCAGTTAGACCCTGGTATCCTCATCATGATGGAAAAAATA
CATTGAACCAAGGGATCCTCCCTCCCCTTCAAGGCAGACGTTCAGTACAAACATTTATGCGGTAGGCTCAGATGT
CGTAATTTGCACTTAGGTACCAGGTGTCAGGAAACAGACTAAAAAGAATTCCACCAGGCTGTTTGGAGATCCTCA
TCTTGGAGCTTTTTCAAAAGCGGGGCTTCATCTGCAAAGGGCCCTTTCATCTTGAAGTTTTTCCCCTCCGTCTTT
```

FIGURE 54B

CCCCTCCCCTGGCATGGACACCTTGTGTTTAGGATCATCTCTGCAGGTTTCCTAGGTCTGAATCTGCGAGTAGAT
GAACCTGCAGCAAGCAGCGTTTATGGTGCTTCCTTCTCCCTCCTCTGTCTCAAACTGCGCAGGCAAGCACTATGC
AAGCCCAGGCCCTCTGCTGAGCGGTACTAAACGGTCGGGTTTTCAATCACACTGAATTGGCAGGATAAGAAAAAT
AGGTCAGATAAGTATGGGATGATAGTTGAAGGGAGGTGAAGAGGCTGCTTCTCTACAGAGGTGAAATTCCAGATG
AGTCAGTCTCTTGGGAAGTGTGTTTAGAAGGGTTCAGGACTTTGTGAGTTAGCATGACCCTAAAATTCTAGGGGA
TTTCTGGTGGGACAATGGGTGGTGAATTTTGAAGTTTTGGAGAGGGAAGTGGAGCAGCCAGCAAGTAAGCTAGCC
AGAGTTTTCTCAAGAGCCAGCTTTGCTCAGCACACTCTCCTGGGCCCCAAGGAGTCCCACGGAATGGGGAAAGTG
GGAACCCTGGAGTTCTTGGGAATCTTGGAGCCTAAAGAGAAACCGAGGTGCAAATTCATTTCATGGTGACTGACC
CTTGAGCTTAAACAGAAGCAGCAAATGAAAGAACCGGACAAATAAGGAAGGGCACAAGCCTACCCGACTCTATTT
ACAGTCTGTAACTTTCCACTCTTCCTGTAGTCCCGAGGCCCCTGGGTCCTTCTAGCTTTTCTCTTTCCCATCCTT
GGGGCCTTGTGTGATGATGGGTGTGGGGCTGCCGATGGGAAAGTCGGGGGGTTGTTAGGCTTTTCTGCCTGCTCCT
GCTTAAACACAAGAAGGAATCCTGGATTTTGCCCTCTCCTTAGCTCTTAGTCTCTTTGGTAGGAGTTTTGTTCCA
GAGGAGCTCTCCCCCTTGGATTTGAACTTGCTCTTTTTGTTGTTGTTGTTCTTTCTCTTCTTTTTCTTACCTCCC
ACTAAAGGGGTTCCAAATTATCCTGGTCTTTTTCTACCTTGTTGTGTTTCTATCTCGTCTTTACTTCCATCTGTT
TGTTTTTTTCTCCATCAGTGGGGGCCGAGTTGTTCCCCCAGCCTGCCAAATTTTGATCCTTCCCCTCTTTTGGCC
AAATCCTAGGGGGAAGAAATCCTAGTATGCCAAAAATATATGCTAAGCATAATTAAACTCCATGCGGGTCCATAA
CAGCCAAGAAGCCTGCAGGAGAAAGCCAAGGGCAGTTCCCTCCGCAGAACACCCCATGCGTGCTGAGAGGCGAGC
TCCTTGAAGAAGGGGCTGTTCTTCCAGGAGGCCTTATTTTGAACTGCCTCAGGACCCCACTGGAGAGCACAGCAT
GCCTTACTACTGGGTCATCCTTGGTCTATGTGCTCTGTACTGGAGGCTCTGTTCTGCCTCTTATCAGCCAGGTCA
GGGGCACACATGGCTTAAGTGACAAAGCCAGAGGAGAAGACAACCCTGACAGCATCACGCTGCATCCCATTGCTA
GCAGGATTGGCAACTCTTCAGACGGAGCTGCGCTTCCCTGCAGTCTAGCACCTCTAGGGCCTCTCCAGACTGTGC
CCTGGGAGCTCTGGGACTGAAAGGTTAAGAACATAAGGCAGGATCAGATGACTCTCTCCAAGAGGGCAGGGGAAT
TTTCTCTCCATGGGCCACAGGGGACAGGGCTGGGAGAAGAAATAGACTTGCACCTTATGTCATGTAAATAATTGA
TTTTCTAGTTCAAGAAGATAATATTGGTAGTGTGGGAATTGGAGGTAGGAAGGGGAGGAAGTCTGAGTAAGCCAG
TTGGCTTCTAAGCCAAAAGGATTCCTCTTTGTTTATCTCTGAGACAGTCCAACCTTGAGAATAGCTTTAAAAGGG
AAATTAATGCTGAGATGATAAAGTCCCCTTAAGCCAACAAACCCTCTGTAGCTATAGAATGAGTGCAGGTTTCTA
TTGGTGTGGACTCAGAGCAATTTACAAGAGCTGTTCATGCAGCCATCCATTTGTGCAAAATAGGGTAAGAAGATT
CAAGAGGATATTTATTACTTCCTCATACCACATGGCTTTTGATGATTCTGGATTCTAAACAACCCAGAATGGTCA
TTTCAGGCACAACGATACTACATTCGTGTGTGTCTGCTTTTAAACTTGGCTGGGCTATCAGACCCTATTCTCGGC
TCAGGTTTTGAGAAGCCATCAGCAAATGTGTACGTGCATGCTGTAGCTGCAGCCTGCATCCCTTCGCCTGCAGCC
TACTTTGGGGAAATAAAGTGCCTTACTGACTGTAGCCATTACAGTATCCAATGTCTTTTGACAGGTGCCTGTCCT
TGAAAAACAAAGTTTCTATTTTTATTTTTAATTGGTTTAGTTCTTAACTGCTGGCCAACTCTTACATCCCCAGCA
AATCATCGGGCCATTGGATTTTTTCCATTATGTTCATCACCCTTATATCATGTACCTCAGATCTCTCTCTCTC
CTCTCTCTCAGTTATATAGTTTCTTGTCTTGGACTTTTTTTTTCTTTTCTTTTTCTTTTTTTTTTGCTTTAAAA
CAAGTGTGATGCCATATCAAGTCCATGTTATTCTCTCACAGTGTACTCTATAAGAGGTGTGGGTGTCTGTTTGGT
CAGGATGTTAGAAAGTGCTGATAAGTAGCATGATCAGTGTATGCGAAAAGGTTTTTAGGAAGTATGGCAAAAATG
TTGTATTGGCTATGATGGTGACATGATATAGTCAGCTGCCTTTTAAGAGGTCTTATCTGTTCAGTGTTAAGTGAT
TTAAAAAAATAATAACCTGTTTTCTGACTAGTTTAAAGATGGATTTGAAAATGGTTTTGAATGCAATTAGGTTAT
GCTATTTGGACAATAAACTCACCTTGACCT

FIGURE 55

MELLCHEVDPVRRAVRDRNLLRDDRVLQNLLTIEERYLPQCSYFKCVQKDIQPYMRRMVATWMLEVCEEQKCEEE
VFPLAMNYLDRFLAGVPTPKSHLQLLGAVCMFLASKLKETSPLTAEKLCIYTDNSIKPQELLEWELVVLGKLKWN
LAAVTPHDFIEHILRKLPQQREKLSLIRKHAQTFIALCATDFKFAMYPPSMIATGSVGAAICGLQQDEEVSSLTC
DALTELLAKITNTDVDCLKACQEQIEAVLLNSLQQYRQDQRDGSKSEDELDQASTPTDVRDIDL

FIGURE 56A

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AGAGCGAGCAGGGGAGAGCGAGACCAGTTTTAAGGGGAGGACCGGTGCGAGTAAGGCAGCCCCGAGGCTCTGCTC
GCCCACCACCCAATCCTCGCCTCCCTTCTGCTCCACCTTCTCTCTCTGCCCTCACCTCTCCCCCGAAAACCCCCT
ATTTAGCCAAAGGAAGGAGGTCAGGGGAACGCTCTCCCCTCCCCTTCCAAAAAACAAAAACAGAAAAACCCTTTT
CCAGGCCGGGGAAAGCAGGAGGGAGAGGGGCCGCCGGGCTGGCCATGGAGCTGCTGTGCCACGAGGTGGACCCGG
TCCGCAGGGCCGTGCGGGACCGCAACCTGCTCCGAGACGACCGCGTCCTGCAGAACCTGCTCACCATCGAGGAGC
GCTACCTTCCGCAGTGCTCCTACTTCAAGTGCGTGCAGAAGGACATCCAACCCTACATGCGCAGAATGGTGGCCA
CCTGGATGCTGGAGGTCTGTGAGGAACAGAAGTGCGAAGAAGAGGTCTTCCCTCTGGCCATGAATTACCTGGACC
GTTTCTTGGCTGGGGTCCCGACTCCGAAGTCCCATCTGCAACTCCTGGGTGCTGTCTGCATGTTCCTGGCCTCCA
AACTCAAAGAGACCAGCCCGCTGACCGCGGAGAAGCTGTGCATTTACACCGACAACTCCATCAAGCCTCAGGAGC
TGCTGGAGTGGGAACTGGTGGTGCTGGGGAAGTTGAAGTGGAACCTGGCAGCTGTCACTCCTCATGACTTCATTG
AGCACATCTTGCGCAAGCTGCCCCAGCAGCGGGAGAAGCTGTCTCTGATCCGCAAGCATGCTCAGACCTTCATTG
CTCTGTGTGCCACCGACTTTAAGTTTGCCATGTACCCACCGTCGATGATCGCAACTGGAAGTGTGGGAGCAGCCA
TCTGTGGGCTCCAGCAGGATGAGGAAGTGAGCTCGCTCACTTGTGATGCCCTGACTGAGCTGCTGGCTAAGATCA
CCAACACAGACGTGGATTGTCTCAAAGCTTGCCAGGAGCAGATTGAGGCGGTGCTCCTCAATAGCCTGCAGCAGT
ACCGTCAGGACCAACGTGACGGATCCAAGTCGGAGGATGAACTGGACCAAGCCAGCACCCCTACAGACGTGCGGG
ATATCGACCTGTGAGGATGCCAGTTGGGCCGAAAGAGAGAGACGCGTCCATAATCTGGTCTCTTCTTCTTTCTGG
TTGTTTTTGTTCTTTGTGTTTTAGGGTGAAACTTAAAAAAAAAATTCTGCCCCCACCTAGATCATATTTAAAGAT
CTTTTAGAAGTGAGAGAAAAAGGTCCTACGAAAACGGAATAATAAAAAGCATTTGGTGCCTATTTGAAGTACAGC
ATAAGGGAATCCCTTGTATATGCGAACAGTTATTGTTTGATTATGTAAAAGTAATAGTAAAATGCTTACAGGAAA
ACCTGCAGAGTAGTTAGAGAATATGTATGCCTGCAATATGGGAACAAATTAGAGGAGACTTTTTTTTCATGTTA
TGAGCTAGCACATACACCCCCTTGTAGTATAATTTCAAGGAACTGTGTACGCCATTTATGGCATGATTAGATTGC
AAAGCAATGAACTCAAGAAGGAATTGAAATAAGGAGGGACATGATGGGGAAGGAGTACAAAACAATCTCTCAACA
TGATTGAACCATTTGGGATGGAGAAGCACCTTTGCTCTCAGCCACCTGTTACTAAGTCAGGAGTGTAGTTGGATC
TCTACATTAATGTCCTCTTGCTGTCTACAGTAGCTGCTACCTAAAAAAAGATGTTTATTTTGCCAGTTGGACAC
AGGTGATTGGCTCCTGGGTTTCATGTTCTGTGACATCCTGCTTCTTCTTCCAAATGCAGTTCATTGCAGACACCA
CCATATTGCTATCTAATGGGGAAATGTAGCTATGGGCCATAACCAAAACTCACATGAAACGGAGGCAGATGGAGA
CCAAGGGTGGGATCCAGAATGGAGTCTTTTCTGTTATTGTATTTAAAAGGGTAATGTGGCCTTGGCATTTCTTCT
TAGAAAAAACTAATTTTTGGTGCTGATTGGCATGTCTGGTTCACAGTTTAGCATTGTTATAAACCATTCCATTC
GAAAAGCACTTTGAAAAATTGTTCCCGAGCGATAGATGGGATGGTTTATGCAAGTCATGCTGAATACTCCTCCCC
TCTTCTCTTTTGCCCCCTCCCTTCCTGCCCCCAGTCTGGGTTACTCTTCGCTTCTGGTATCTGGCGTTCTTTGGT
ACACAGTTCTGGTGTTCCTACCAGGACTCAAGAGACACCCCTTCCTGCTGACATTCCCATCACAACATTCCTCAG
ACAAGCCTGTAAACTAAAATCTGTTACCATCTGATGGCACAGAAGGATCTTAATTCCCATCTCTATACTTCTCCT
TTGGACATGGAAAGAAAAGTTATTGCTGGTGCAAAGATAGATGGCTGAACATCAGGGTGTGGCATTTTGTTCCCT
TTTCCGTTTTTTTTTTTTTTATTGTTGTTGTTAATTTTATTGCAAAGTTGTATTCAGCGTACTTGAATTTTTCTT
CCTCTCCACTTCTTAGAGGCATTCAGTTAGCAAAGAGGTTGGAGCAACAACTTTTTTTTTTTTTTTGCACAAT
TGTAATTGACAGGTAATGAAGCTATTTGTTAAAATATTTGCCTTTTTAAGTAAAAAAGAAAAATCAGAACAGGGC
TATTTGAAGAATTATTTTATACACAGATTCTGCCTTGTTTCATAGTATGAGGGTTGAAGACGGAAAACAATCTAA
GGGTCTCTCATTTTTTTAATTTTGTTTTGTTCAGTTTGGTTTTTTTTTTTTTGCGCTGCTAAGAAGCTAAAGT
CATCCATCCTTATTCACGTTGACAGTACCTAGCTGTAATGTTTCACAGAGTGTGCTGCTATTTTATAAACATTTT
TATAATATATTATTTTACTGCTTAAATTCCAAGTCCTGAAGTAGATGGTTGAGATATGAGTTCTTCGTACTGGAA
AAGCCCTTCCGTAGTTTGTTTTCTTCTGGTAGCATATTCATGGTTGTTTTTTTTTTTCTTTTTTGGTTTTTTGGT
TTTTTTTTTTCCTCTGATCACATTCTTCAAAGACGGAGTATTCTTACCTCAGGTTTACTGGACAAAATCAATAA
CTACAAAAGGCAATGATTCACGCTTTTGTTTTCATAATACCTCACAACCGTACAGTTTCTGCTTGGGAGCCCATT
CGCATGAGGAATACAGAAGCAGTGTGAGCAGGGCTGACTCCCTCTCAGGTGGAAGGCAGGCGGTCTCACTCCCA
GGGACCTTTTTGGTCATGGAGGCCATCGGGCTCCCAGTTAGACCCTGGTATCCTCATCATGATGGAAAAAATACA
TTGAACCAAGGGATCCTCCCTCCCCTTCAAGGCAGACGTTCAGTACAAACATTTATGCGGTAGGCTCAGATGTCG
TAATTTGCACTTAGGTACCAGGTGTCAGGAAACAGACTAAAAGAATTCCACCAGGCTGTTTGGAGATCCTCATC
TTGGAGCTTTTTCAAAAGCGGGGCTTCATCTGCAAAGGGCCCTTTCATCTTGAAGTTTTTCCCCTCCGTCTTTCC
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FIGURE 56B

CCTCCCCTGGCATGGACACCTTGTGTTTAGGATCATCTCTGCAGGTTTCCTAGGTCTGAATCTGCGAGTAGATGA
ACCTGCAGCAAGCAGCGTTTATGGTGCTTCCTTCTCCCTCCTCTGTCTCAAACTGCGCAGGCAAGCACTATGCAA
GCCCAGGCCCTCTGCTGAGCGGTACTAAACGGTCGGGTTTTCAATCACACTGAATTGGCAGGATAAGAAAAATAG
GTCAGATAAGTATGGGATGATAGTTGAAGGGAGGTGAAGAGGCTGCTTCTCTACAGAGGTGAAATTCCAGATGAG
TCAGTCTCTTGGGAAGTGTGTTTAGAAGGGTTCAGGACTTTGTGAGTTAGCATGACCCTAAAATTCTAGGGGATT
TCTGGTGGGACAATGGGTGGTGAATTTTGAAGTTTTGGAGAGGGAAGTGGAGCAGCCAGCAAGTAAGCTAGCCAG
AGTTTTCTCAAGAGCCAGCTTTGCTCAGCACACTCTCCTGGGCCCCAAGGAGTCCCACGGAATGGGGAAAGTGGG
AACCCTGGAGTTCTTGGGAATCTTGGAGCCTAAAGAGAAACCGAGGTGCAAATTCATTTCATGGTGACTGACCCT
TGAGCTTAAACAGAAGCAGCAAATGAAAGAACCGGACAAATAAGGAAGGGCACAAGCCTACCCGACTCTATTTAC
AGTCTGTAACTTTCCACTCTTCCTGTAGTCCCGAGGCCCCTGGGTCCTTCTAGCTTTTCTCTTTCCCATCCTTGG
GGCCTTGTGTGATGATGGGTGTGGGGCTGCCGATGGGAAAGTCGGGGGTTGTTAGGCTTTTCTGCCTGCTCCTGC
TTAAACACAAGAAGGAATCCTGGATTTTGCCCTCTCCTTAGCTCTTAGTCTCTTTGGTAGGAGTTTTGTTCCAGA
GGAGCTCTCCCCCTTGGATTTGAACTTGCTCTTTTTGTTGTTGTTGTTCTTTCTCTTCTTTTTCTTACCTCCCAC
TAAAGGGGTTCCAAATTATCCTGGTCTTTTTCTACCTTGTTGTGTTTCTATCTCGTCTTTACTTCCATCTGTTTG
TTTTTTTCTCCATCAGTGGGGGCCGAGTTGTTCCCCCAGCCTGCCAAATTTTGATCCTTCCCCTCTTTTGGCCAA
ATCCTAGGGGGAAGAAATCCTAGTATGCCAAAAATATATGCTAAGCATAATTAAACTCCATGCGGGTCCATAACA
GCCAAGAAGCCTGCAGGAGAAAGCCAAGGGCAGTTCCCTCCGCAGAACACCCATGCGTGCTGAGAGGCGAGCTC
CTTGAAGAAGGGGCTGTTCTTCCAGGAGGCCTTATTTTGAACTGCCTCAGGACCCCACTGGAGAGCACAGCATGC
CTTACTACTGGGTCATCCTTGGTCTATGTGCTCTGTACTGGAGGCTCTGTTCTGCCTCTTATCAGCCAGGTCAGG
GGCACACATGGCTTAAGTGACAAAGCCAGAGGAGAAGACAACCCTGACAGCATCACGCTGCATCCCATTGCTAGC
AGGATTGGCAACTCTTCAGACGGAGCTGCGCTTCCCTGCAGTCTAGCACCTCTAGGGCCTCTCCAGACTGTGCCC
TGGGAGCTCTGGGACTGAAAGGTTAAGAACATAAGGCAGGATCAGATGACTCTCTCCAAGAGGGCAGGGGAATTT
TCTCTCCATGGGCCACAGGGGACAGGGCTGGGAGAAGAAATAGACTTGCACCTTATGTCATGTAAATAATTGATT
TTCTAGTTCAAGAAGATAATATTGGTAGTGTGGGAATTGGAGGTAGGAAGGGGAGGAAGTCTGAGTAAGCCAGTT
GGCTTCTAAGCCAAAAGGATTCCTCTTTGTTTATCTCTGAGACAGTCCAACCTTGAGAATAGCTTTAAAAGGGAA
ATTAATGCTGAGATGATAAAGTCCCCTTAAGCCAACAAACCCTCTGTAGCTATAGAATGAGTGCAGGTTTCTATT
GGTGTGGACTCAGAGCAATTTACAAGAGCTGTTCATGCAGCCATCCATTTGTGCAAAATAGGGTAAGAAGATTCA
AGAGGATATTTATTACTTCCTCATACCACATGGCTTTTGATGATTCTGGATTCTAAACAACCCAGAATGGTCATT
TCAGGCACAACGATACTACATTCGTGTGTGTCTGCTTTTAAACTTGGCTGGGCTATCAGACCCTATTCTCGGCTC
AGGTTTTGAGAAGCCATCAGCAAATGTGTACGTGCATGCTGTAGCTGCAGCCTGCATCCCTTCGCCTGCAGCCTA
CTTTGGGGAAATAAAGTGCCTTACTGACTGTAGCCATTACAGTATCCAATGTCTTTGACAGGTGCCTGTCCTTG
AAAAACAAAGTTTCTATTTTTATTTTTAATTGGTTTAGTTCTTAACTGCTGGCCAACTCTTACATCCCCAGCAAA
TCATCGGGCCATTGGATTTTTTCCATTATGTTCATCACCCTTATATCATGTACCTCAGATCTCTCTCTCTCCT
CTCTCTCAGTTATATAGTTTCTTGTCTTGGACTTTTTTTTTCTTTTCTTTTTCTTTTTTTTTTGCTTTAAAACA
AGTGTGATGCCATATCAAGTCCATGTTATTCTCTCACAGTGTACTCTATAAGAGGTGTGGGTGTCTGTTTGGTCA
GGATGTTAGAAAGTGCTGATAAGTAGCATGATCAGTGTATGCGAAAAGGTTTTTAGGAAGTATGGCAAAAATGTT
GTATTGGCTATGATGGTGACATGATATAGTCAGCTGCCTTTTAAGAGGTCTTATCTGTTCAGTGTTAAGTGATTT
AAAAAAATAATAACCTGTTTTCTGACTAGTTTAAAGATGGATTTGAAAATGGTTTTGAATGCAATTAGGTTATGC
TATTTGGACAATAAACTCACCTTGACCT

FIGURE 57

MELLCHEVDPVRRAVRDRNLLRDDRVLQNLLTIEERYLPQCSYFKCVQKDIQPYMRRMVATWMLEVCEEQKCEEE
VFPLAMNYLDRFLAGVPTPKSHLQLLGAVCMFLASKLKETSPLTAEKLCIYTDNSIKPQELLEWELVVLGKLKWN
LAAVTPHDFIEHILRKLPQQREKLSLIRKHAQTFIALCATDFKFAMYPPSMIATGSVGAAICGLQQDEEVSSLTC
DALTELLAKITNTDVDCLKACQEQIEAVLLNSLQQYRQDQRDGSKSEDELDQASTPTDVRDIDL

FIGURE 58A

GAGAGAAGCCTGATATGTAACCCAGGCGGGTGGGAGCCTCAGTCTGTCGGGCTGAGGTCTGGCATCTACAAAGCC
TCTTGGCCGTGTTCTGAACTTGAAGCCTGGAGGAGTTCTCTGCTCAGCACAGCCAAGGAACAGAATTAGAAGAAA
AGGAACCCTGGCCTGAGGCAGGTGACAAACATTACCACCCCAGCTGTGCACGATGCAGCAGATGCAACCAG**ATGT**
TCACAGAAGGAGAGGAAATGTATCTTCAAGGCTCCACCGTTTGGCATCCCGACTGTAAGCAATCTACGAAGACCG
AGGAAAAGCTGCGGCCTACCAGGACATCCTCGGAAAGTATTTATTCTAGGCCAGGCTCCAGTATTCCTGGCTCAC
CAGGTCATACTATCTATGCAAAAGTAGACAATGAGATCCTGGATTACAAGGATTTAGCAGCCATTCCGAAGGTCA
AGGCAATTTATGACATTGAACGTCCAGATCTTATTACCTATGAGCCTTTCTACACTTCGGGCTATGATGACAAAC
AGGAGAGACAGAGCCTTGGAGAGTCTCCGAGGACTTTGTCTCCTACTCCATCAGCAGAAGGGTACCAGGATGTTC
GGGATCGGATGATCCATCGGTCCACGAGCCAGGGCTCCATCAACTCCCCTGTGTACAGCCGCCACAGCTACACTC
CAACCACGTCCCGCTCTCCCCAGCATTTCCACAGACCTGGCAATGAGCCGTCCAGCGGCCGGAACTCCCCTCTCC
CTTACCGGCCAGACAGCCGCCCTCTAACTCCAACTTACGCTCAGGCCCCTAAACATTTCCATGTTCCAGATCAAG
GAATCAACATTTACCGAAAGCCACCCATCTACAAACAGCATGCTGCCTTGGCAGCCCAGAGCAAGTCCTCAGAAG
ATATCATCAAGTTTTCCAAGTTCCCAGCAGCCCAGGCACCAGACCCCAGCGAGACACCAGAGATTGAGACGGACC
ACTGGCCTGGTCCCCCCTCATTTGCTGTCATAGGACCTGACATGAAACGCAGATCTAGTGGCAGAGAGGAAGATG
ATGAGGAACTTCTGAGACGTCGGCAGCTTCAAGAAGAGCAATTAATGAAGCTTAACTCAGGCCTGGGACAGTTGA
TCTTGAAAGAAGAGATGGAGAAAGAGAGCCGGGAAAGGTCATCTCTGTTAGCCAGTCGCTACGATTCTCCCATCA
ACTCAGCTTCACATATTCCATCATCTAAAACTGCATCTCTCCCTGGCTATGGAAGAAATGGGCTTCACCGGCCTG
TTTCTACCGACTTCGCTCAGTATAACAGCTATGGGGATGTCAGCGGGGGAGTGCGAGATTACCAGACACTCCCAG
ATGGCCACATGCCTGCAATGAGAATGGACCGAGGAGTGTCTATGCCCAACATGTTGGAACCAAAGATATTTCCAT
ATGAAATGCTCATGGTGACCAACAGAGGGCGAAACAAAATCCTCAGAGAGGTGGACAGAACCAGGCTGGAGCGCC
ACTTAGCCCCTGAAGTGTTTCGGGAAATCTTTGGAATGTCCATACAGGAGTTTGACAGGTTACCTCTTTGGAGAC
GCAACGACATGAAGAAAAAAGCAAAACTCTTC**TAA**GTCCCACTCGTGAATGGCAATTAGAGAAAGGACTGACAGT
GGCGGTGCCCCATAGGATGTCATATTGAGGCCCAAACTTGATTGGAGAATTTGCAAACTACCGTCGCTCAGCAAC
ACCAAAAAGAGAAAGTCTGGTTAAAACACCATGAGTCAAATGTCGGGCCAGCCAACAGTAACACTTGCCAAGAAG
CATGGCGTAGAAATTTCTATGTTCCGAAACACAGAGTAGTGTCCACATGTGACCTTTTCACATTACCTTATGTAT
ACAACAGGAGCTGCGTTGTTTTCTTCTTTTTCTTTTCCTTTATCTGTTGTCCAACAACAGTGCTGACTGTCCGGA
TAAGAGCTGGCAAGTGCCCTTAGGATGCCGCATGGGAAAAATCGGTTATCATAATTTCAAAGTATAAATATATTT
ATTATGTAGCGCTGCGGCTAAGAAGGAAGAGTGAGGGGTCTGTCCATGGGGTGGCAGTGATTTCACACCCGCCTT
TCTTGAATGGCTTCGTGTTACTCAGCCGTGCCCTGGCAGGAATGGAACTCCATCAGGGAACAGGGCAGCTCTGTT
TGAATGGGGTGAAAAACAGCAAAATTAATTCTTAGCAAGCTCCTTGTTCTCTACTGTTCACCGGGACCTGGCTGG
CAAATGACTTAGCTATTAGTATATTTAAAAACTGTTCAAAAGCAAAAGAGAAGGAACAGGAATGAAAGGAAACCT
TCCCTTAACTCTTTCTGCTTCCCATAGCAGGTCTGGTTCCTGCTCCCCGCCTAGGACAGGAGCTGTCTGGAGCTC
CACCTTTGCAAAGAAAGGAAAAACACAAATTGCCCCCAGATTGGCCCAGTGGCATGCCATTAGGTGATTTTGCGT
AGGGGCCATATCATTCATGGCCAAAAAAAACCAAAAAGCAAAAAACAAAAACAAGTCCCATGTCCTACTGACTCT
AGTTCTTCCAGTCGTTATCCTCTGCTGTCTCTCTGGCATCCTATGAATCAGATCAAGCCCATGCTGTTGTTGGTT
TTTAAGGTTTCTTTCAATAATAGGCTAAGGAAAGACATGTTTTTCTCTTTTAAATCTCTGCAACTCCAAAGTAGA
CTCCTTCGAACGTATTTAATTTGGCCTTTTCAGCTTTCTTCTTGCCCAGCTCTGTCGAATTCATGGGTGTGTGTG
CACATGTTGGTTTCACTCACCCAGAGTAATTTTGTGAGCATGCATGTGCTTTTTAATTTCTGCTTGAATGTTTGT
CCTGCTGTGTTGCAGCTTCTAAAGACATTGTCACCGAGTGTGTGTGACTCAAAGATCAAGAGTGAGGCTAAACTG
CGACCCCAACATCACTTCCTTCATGGAAAGGTGTTGGCGCTGATGTAGCTCATGGAAGGATCAGACTGGGAACCA
CAGAGGAAGGATGAGGTGGGATGTGGAGGTCAGAGCATCTCACGAGAGTCCCTCAGGCTCTGCAACACTAGATTC
GAATATGAGCCTAGGGTTTCCCCAACACGTGCGTGCATATGAAACCACATCATGATTCCCGACGTGAGTTAGATG
AGGGAGAGTTTGTGTAACTCCACACCCAGGAGGGTAAGCCACTTTATTATCATGCTTTGGGGCTGTGCTTAAGAA
TTTAAGCTCTGTTTTAAAGCCGAAGAAGAAACATTTGAATTTACCTTCATATGCCACTAAGAACAAAAGCTCTG
AAGTTCTTCCTGCTGGCACCAAATATTAGGATTACAAGCTGTCTCTCTGACACCAGTGGTAAAAAAGCAAGTAGA
ATAGTTTCTGAGTCTGTGTTGCAGCCTCTGACACGTGGCTCACTGCTGTCATTTGGGGGGTGGAATGAACAGTCA
CTGTTCTATAGCATCCTCCTGTGCTCTTACCTAAGGAATCTAAATTGTCCTAGCCTTCCATTGCTATGCACTGAA
TGAGGACTACTCTCGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTGGATCTACTAAC

FIGURE 58B

ATGTTTAGCAAATGGCTCTGACAGGGTGGCCATGAGCAGATGAGACCAGCTCTTGCTTGGTTGGAAGCCACACTG
CAGTTTGCAGTTTAGCCTTTGGTGTCTCAGTGGCCTCTTGCTTATTCCATGCTTTTTCTATCCCATCCTCTCTCT
GTGCCCTCCTGCAATGGCAGCCTTGGCACAATGCCTGGGTGTCCTCATCCTTGCTTTACTCTGGAAAGTGTGGGG
ATGGAGAGGATGGTGCATTTCCAGTGCTTCCTTACCTGTCAATAACAATGGTGGCCACCTGGGTCCCAGCACTTG
GCTGGTGGAGAGATTTTTTTCATTATGGAGCTAATAAAGGGTCCCTACGTTTTACATTGATTAATGAATTATCAC
CCAGACATGTGCAGATGAAATGTCAATATAAGAAAAATCAAGGTATTTGGGAAACATGGGCATAATCAGGTAGTT
TTGCTAAAATTCCTCTTCCTTGGTCTACATAAAGAAGACATGGGTCTGTCATAGAATGGGGACATTAGACTGAAA
ACTGGGACAACCCCCTTCCTTATTTTATAGAGACTAGGAGTTAAGGGGCCTGCCTAAGATTGCAGTGATAAAGAA
CTGAACCCTAAATCAGCTCCCACTAATGAAACCCTGCTTTCCTTGTATCTTTTAAACTCAGTTCTGCATCCAACT
TGAGAAGAAAAAAGCTTCTTTCCATATCAAGTACCATATGAGTTCATTTAAACTGCACCTTGCAGAAATGCATT
GCCAGAAAGCACCAGTAGCCTCCTATCTGCAAGCAGAGTAGTGCTCTGCTCTGGGGAGGGGTCATTGGAAACCAT
AATGCAGAGTGGGCCCCCTACTCCATTTCCCAGCAAAAGGCTCCAGCTGGAGGGATGGGTTGTGGGGCAACCTGG
TTCCTGCTAACTGCCAGATTGAATGTGTGGGCTAGAATGCCTGCGCATTAGTTAAACTGGGCTCAGCATGCTTG
TCCTCAAAATGTCCATCCTGGTCACAGCACACAAGATGGCTATTGGTCTGCTTTTACCCTACCCTGTACTATACA
TGAAAATTCCAGTTATTAACACACTCAAACTGGTGGAGCTTGTTCACCCTAGGAAGGGGATTGTATATATGGCAG
GCTTCCCTGGTGCCGATGTAAAGGGCTACATTTGGGAACATTTGACTTCCTTGGGACTCTTAAGTGCATACTGAT
GGCATGAAGTAAAAGGGGCCTCAATGATGATAGGAAATCAGTTCTTTTAAAATTTCTTCAAGAAAATCCAGGCT
ATCACATAGTCTTTCTGTGTGACTTATTAGGAGATAGGAAGAGCATTGGGAAACTTGCACAGCTAGCTATGCATC
TACATTTTGGTTTGGGGTTAGTTATGAAATGTTCTTAATATGACGTGTTCAATAACTTCACATAAACTTCCTGTT
CTCCAAAACCTCAAAGAGATAGAGTTAATGAGTTGTTGTTTTTTTTAAATGGGGGTAGTTTTCTATCTGTCATG
GGCTCTAGCATCTACTCCGCTACCCAATTCTGTCATCTCCAAGCTGAGTTTCCTCTTCTGAGGCAGAGGCTGGAG
CAGTTCTTTTTCAGTTCTCATCCTCTCCATCCCAATCCAGTATATCAATCAACTCTAACTCGGAGACGTCTAGCT
GGCAATGTTTCTAAAACTTTCACTGGATTTCTTTAGACATTGAAGCAAACATTTTTTTCTAAGAATTGCTTCTCA
GATGATGATATCAAATGTATATGCTTTTGCAAGTTTGAAAAGTTCAAATTAACCACTTTTGACTAGGTAAGTCTT
TCTAAAAACCATTTAAAGCTAACTGGGTCTTAGCATCCTCCTGTGTATGGAAGAGACAGGTGACCGCTCCAGGTT
GGGTGCTCACAGAACCCTTTTCCTGACTCTCATGGAAGATGGTGGAAGGAAAATAGACTGTCTCATCAACCCTCC
TGTGTCCTCTGAAGCAATCTCAGTTTTTATTAACCACCTCTTCTGTGTTTCTGGTAGCTATTTAACCTGTATTTA
ATCTGTACTTCCTATGCCAGCCTCAATTTTATTTGATTTTTAAAATTATTCTCTTCTAACCAATGAAGTGTTTGT
CAGTATGCCCCAAAGCTTGCTCTTTTGTGCTCCCTTTTGAATAACTTTCTATCCAGAAAAAGAGATTATTTGGGA
CTTGAGATTTGCAGTGATACCAACTTATAGCAATGATGTACTTTAAGGGAACTACCCAACTATGTTGTGATAGAA
GAAAGAGAAACCTTCACTTTGGCATTTTTTTTAATCACTGTTTATTTTTCTGTTTGCGGCCCAGGAAGCAGTGGG
AGGTGGTGGCAGATATGCTTTGCATATGGATTGTTATGTTTTTATTTGGGCAAGTTTAATCATGGAAAACTCAAA
AAGAAGGGGGGAAATGGTCAGTTTAAGCCAAAAGAAACTTTCTAAACAATGTATAGGTACACAGCAAAATTAAAC
AAATCCAACAATTTCTGAAGCTTAGTGTAATTGAGTGGTGGTTGTTATTCAATAAAATTATTCCCAAAAGTGTTT
CTCCTAAGAGTGCAGTTCCCATGAGTCACTTCCTGAACCCATTGACCAAAGGTGGACAGAGACAATCCTGTAGAC
CTTGACATTCAGAAAGATGTGAGCTGCTTACTGATCATATATGCATACGTTTCTTTACAGCAGAGGAAACCATTG
TCCACAAAACTGATGTTCTTTTGGGGTTTTATGTACAGACTTGTCCAATCATGTGTGTGGTTCCTGCGAGTTGCT
GATGACTCCGCATTGAAGCTCTCTGAGTTCTTTGATTTTAAGTTGGGTTTATGGAATTTTTTCAAATGTTGGAAG
GCGTGTGGTTCTTCCTGCCCTCCCTCCCCTTTTGGAAATATGAAAGCAAATGTTAGAAGAATTCCTTTTGAAAA
GCTGTGTCGTGTTCCCTGTGAAACTGAGCAGGTGTGTGTTGGCGCGCTAAGTGCCACATGCTTGTGTGTAGAGGA
GGAGGTGGCCCTGCCGGCTCCGCGCTGCTGTGCCTGTGATCCCTACCTGCTCCCCGCTCCTGTTGCCAGCAGCAC
TCACTGCACTCCTTTGTCATATACTCTGCATCACTGTCATACTCACAACTTCGTGAATAAAGTTGTGTGCTTTAT
TCGTC

FIGURE 59

MFTEGEEMYLQGSTVWHPDCKQSTKTEEKLRPTRTSSESIYSRPGSSIPGSPGHTIYAKVDNEILDYKDLAAIPK
VKAIYDIERPDLITYEPFYTSGYDDKQERQSLGESPRTLSPTPSAEGYQDVRDRMIHRSTSQGSINSPVYSRHSY
TPTTSRSPQHFHRPGNEPSSGRNSPLPYRPDSRPLTPTYAQAPKHFHVPDQGINIYRKPPIYKQHAALAAQSKSS
EDIIKFSKFPAAQAPDPSETPEIETDHWPGPPSFAVIGPDMKRRSSGREEDDEELLRRQLQEEQLMKLNSGLGQ
LILKEEMEKESRERSSLLASRYDSPINSASHIPSSKTASLPGYGRNGLHRPVSTDFAQYNSYGDVSGGVRDYQTL
PDGHMPAMRMDRGVSMPNMLEPKIFPYEMLMVTNRGRNKILREVDRTRLERHLAPEVFREIFGMSIQEFDRLPLW
RRNDMKKKAKLF

FIGURE 60

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GAAAGCTGTATTTGCTGCACGTGGAAATCTCCGTTATTTTCCAGCACCCAACAGTAGCGTAATGGGAGTAACGGA
CTTAACCTCATTTCTCTTTCAGAGCATTTAGCCTTCATATGCCCTTCCCTGCATGCTTCCCCCAGGCCGTCAAGA
CTTGAGTTCTGCCTCGCTTCCCGGCGCGGTCGCAGCCCTCAGCCCACTTAGGATAATGGCGACAGCTGAGGTACT
GAACATTGGTAAAAAATTATATGAGGGTAAAACAAAAGAAGTCTACGAATTGTTAGACAGTCCAGGAAAAGTCCT
CCTGCAGTCCAAGGACCAGATTACAGCAGGAAATGCAGCTAGAAAAAACCACCTGGAAGGAAAAGCTGCAATCTC
AAATAAAATCACCAGTTGTATTTTTCAGTTATTACAGGAAGCAGGTATTAAAACTGCCTTCACCAGAAAATGTGG
GGAGACAGCTTTCATTGCACCGCAGTGTGAAATGATTCCAATTGAATGGGTTTGCAGAAGAATAGCAACTGGTTC
TTTTCTCAAAAGAAATCCTGGTGTCAAGGAAGGATATAAGTTTTACCCACCTAAAGTGGAGTTGTTTTTCAAGGA
TGATGCCAATAATGACCCACAGTGGTCTGAGGAACAGCTGATTGCTGCAAAATTTTGCTTTGCTGGACTTCTTAT
AGGCCAGACTGAAGTGGATATCATGAGTCATGCTACACAGGCTATATTTGAAATACTGGAGAAATCCTGGTTGCC
CCAGAATTGTACACTGGTTGATATGAAGATTGAATTTGGTGTTGATGTAACCACCAAAGAAATTGTTCTTGCTGA
TGTTATTGACAATGATTCCTGGAGACTCTGGCCATCAGGAGATCGAAGCCAACAGAAAGACAAACAGTCTTATCG
GGACCTCAAAGAAGTAACTCCTGAAGGGCTCCAAATGGTAAAGAAAAACTTTGAGTGGGTTGCAGAGAGAGTAGA
GTTGCTTTTGAAATCAGAAAGTCAGTGCAGGGTTGTAGTGTTGATGGGCTCTACTTCTGATCTTGGTCACTGTGA
AAAAATCAAGAAGGCCTGTGGAAATTTTGGCATTCCATGTGAACTTCGAGTAACATCTGCGCATAAAGGACCAGA
TGAAACTCTGAGGATTAAAGCTGAGTATGAAGGGGATGGCATTCCTACTGTATTTGTGGCAGTGGCAGGCAGAAG
TAATGGTTTGGGACCAGTGATGTCTGGGAACACTGCATATCCAGTTATCAGCTGTCCTCCCCTCACACCAGACTG
GGGAGTTCAGGATGTGTGGTCTTCTCTTCGACTACCCAGTGGTCTTGGCTGTTCAACCGTACTTTCTCCAGAAGG
ATCAGCTCAATTTGCTGCTCAGATATTTGGGTTAAGCAACCATTTGGTATGGAGCAAACTGCGAGCAAGCATTTT
GAACACATGGATTTCCTTGAAGCAGGCTGACAAGAAAATCAGAGAATGTAATTTATAAGAAAGAATGCCATTGAA
TTTTTAGGGGAAAAACTACAAATTTCTAATTTAGCTGAAGGAAAATCAAGCAAGATGAAAAGGTAATTTTAAAT
TAGAGAACACAAATAAAATGTATTAGTGAATAAATGCTTCTCTAGATCCATATTAATAAACATGAGCATCTAACC
CCTCCTTTCTTAGGCTAGACACCAAGATATTTCAGCCAGCCTTTATCATTCCTCTTACTTTATCCTTTTTCCTTA
AGTATTGGTGGTCACTACTATTGAGTTTCTTCCTTAACACTGATTAAATGATCTTAACTCCCTCAGCTAAAACTG
GCATTACTGACTCCCAGCTATATTTCTCCAGACTTGCATTTTTTTTTTTTTTTTGAGACAGGGTCTCACTGTCG
CCCAGGCTGGAGTGCAGTGGCGTGATCTCAGTTCACTGCTGCTTTCCCTCCTGGGCTCAAGCAGTTCTCCCACCT
CAGCCTCTCGACTAACAGGGACTATAATCTTGCAGCACCATGCCGAGCTAATTTTATTTTTTGTAGAGATGAGCT
CTCACTATGTCACCCAGGTTCGTCTCAAACTCCTGAACCCTAGTAATTCTCCTATCTCAGCCTCCCAAAGTGCTA
GGGTTACAGACATGAGCCACTGTGCCTGTCTAGACTTGTACTTTCAACTGTCCATTTCTCCCTGTCTGTCCCATG
GGCACTCATGAAAAAACAGAATGCTCCCAACTTTATTCATCTTCCAAGCCTGTAGCTCTTGGTATACTCACTGTT
GCAAGTCAGAAGCTTGATTTCATCATTGATGTTTTTCTCACGTTTCACATCTCACTCATCACCAAGTCATGTTGG
TGTTAATTTCTGATTAACCCTTGAATTTACCGTCTTCTCATCCTCTGTACAAAAGCCTCAAGTGAGGGTCAAATT
CAACATTATCCTGATCTAGACAGCCCCCATTCTCAATCCACCCTTTTCCAAGTTGATTGCCCAAGGACTTCTAAC
AATAAACTCTCTTTTGCACCACAGACTTCTTTGAAAATATACATGCTGTTGACCCTCTCTGTAGAAAACCGCACA
CATAAAACTTACCAACAGATTTCATTGGTTCTTGGGTTCTCCCGAAGCCTATCCATGGTTTATAGATTAAGAATT
GATGAGGTAGCTGGGCACAGTGGCTCACACCTACGATCACAGCACTTCGGGAGGCTGAAGCAAGCAGATCACTTG
AGGTCAGGAGTTTGAGACCAGCCTGGCCAACATGGTGAAACCCTGTCTCTACTAAAAATACAAAAAGTAGCCAGC
CGTGATGACAGGCACCTGTAATCCCAGCTACTCGGGAGGCTGAGGCATGAGAATTGCTTGAACCCGGGAGGCGGA
GGTTGCAGTGAGCCTGGATCATGCCACTGCACTCCAACCTGGGCAGCAGAGCAAGACTCTGTCTCAAAAGGGGAA
AAAAAAATTGCTGATGTGACCCATGAAGGGAACTCATTTTCCTCGTAATTTTGGACTGCCACACATTGGTACCT
TTAGTTCTCTGAAGGCCCACGTTTTTATCATTAAGACCTATTTGTTAGCTAGTAGAGCTTTATGTTCGCTGTCCA
TGAAACCTTCTGTAACCACAGTGACTACAAGTAGTTCTTTCTCTATTGAATTATTAGGTCCAGAATAGAAGATGT
CATTGTACACTTTATTTCCCTCACACTGTGTTATGCTCTGATGTGCTATGCTTAGCTATCTGTCAGAGATTAGTA
AATTATAAAACTCATGTGTACTACTTAAGTTTATATCTTATGCTAGTTTATAAGAACAATTAAAAGGACTTAGAA
GATTAAAAAAAAAAAAAAAAAAAA
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FIGURE 61

MATAEVLNIGKKLYEGKTKEVYELLDSPGKVLLQSKDQITAGNAARKNHLEGKAAISNKITSCIFQLLQEAGIKT
AFTRKCGETAFIAPQCEMIPIEWVCRRIATGSFLKRNPGVKEGYKFYPPKVELFFKDDANNDPQWSEEQLIAAKF
CFAGLLIGQTEVDIMSHATQAIFEILEKSWLPQNCTLVDMKIEFGVDVTTKEIVLADVIDNDSWRLWPSGDRSQQ
KDKQSYRDLKEVTPEGLQMVKKNFEWVAERVELLLKSESQCRVVVLMGSTSDLGHCEKIKKACGNFGIPCELRVT
SAHKGPDETLRIKAEYEGDGIPTVFVAVAGRSNGLGPVMSGNTAYPVISCPPLTPDWGVQDVWSSLRLPSGLGCS
TVLSPEGSAQFAAQIFGLSNHLVWSKLRASILNTWISLKQADKKIRECNL

FIGURE 62

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GAAAGCTGTATTTGCTGCACGTGGAAATCTCCGTTATTTTCCAGCACCCAACAGTAGCGTAATGGGAGTAACGGA
CTTAACCTCATTTCTCTTTCAGAGCATTTAGCCTTCATATGCCCTTCCCTGCATGCTTCCCCCAGGCCGTCAAGA
CTTGAGTTCTGCCTCGCTTCCCGGCGCGGTCGCAGCCCTCAGCCCACTTAGGATAATGGCGACAGCTGAGGTACT
GAACATTGGTAAAAAATTATATGAGGGTAAAACAAAAGAAGTCTACGAATTGTTAGACAGTCCAGGAAAAGTCCT
CCTGCAGTCCAAGGACCAGATTACAGCAGGAAATGCAGCTAGAAAAAACCACCTGGAAGGAAAAGCTGCAATCTC
AAATAAAATCACCAGTTGTATTTTTCAGTTATTACAGGAAGCAGGTATTAAAACTGCCTTCACCAGAAAATGTGG
GGAGACAGCTTTCATTGCACCGCAGTGTGAAATGATTCCAATTGAATGGGTTTGCAGAAGAATAGCAACTGGTTC
TTTTCTCAAAAGAAATCCTGGTGTCAAGGAAGGATATAAGTTTTACCCACCTAAAGTGGAGTTGTTTTTCAAGGA
TGATGCCAATAATGACCCACAGTGGTCTGAGGAACAGCTGATTGCTGCAAAATTTTGCTTTGCTGGACTTCTTAT
AGGCCAGACTGAAGTGGATATCATGAGTCATGCTACACAGGCTATATTTGAAATACTGGAGAAATCCTGGTTGCC
CCAGAATTGTACACTGGTTGATATGAAGATTGAATTTGGTGTTGATGTAACCACCAAAGAAATTGTTCTTGCTGA
TGTTATTGACAATGATTCCTGGAGACTCTGGCCATCAGGAGATCGAAGCCAACAGAAAGACAAACAGTCTTATCG
GGACCTCAAAGAAGTAACTCCTGAAGGGCTCCAAATGGTAAAGAAAAACTTTGAGTGGGTTGCAGAGAGAGTAGA
GTTGCTTTTGAAATCAGAAAGTCAGTGCAGGGTTGTAGTGTTGATGGGCTCTACTTCTGATCTTGGTCACTGTGA
AAAAATCAAGAAGGCCTGTGGAAATTTTGGCATTCCATGTGAACTTCGAGTAACATCTGCGCATAAAGGACCAGA
TGAAACTCTGAGGATTAAAGCTGAGTATGAAGGGGATGGCATTCCTACTGTATTTGTGGCAGTGGCAGGCAGAAG
TAATGGTTTGGGACCAGTGATGTCTGGGAACACTGCATATCCAGTTATCAGCTGTCCTCCCCTCACACCAGACTG
GGGAGTTCAGGATGTGTGGTCTTCTCTTCGACTACCCAGTGGTCTTGGCTGTTCAACCGTACTTTCTCCAGAAGG
ATCAGCTCAATTTGCTGCTCAGATATTTGGGTTAAGCAACCATTTGGTATGGAGCAAACTGCGAGCAAGCATTTT
GAACACATGGATTTCCTTGAAGCAGGCTGACAAGAAATCAGAGAATGTAATTTATAAGAAAGAATGCCATTGAA
TTTTTAGGGGAAAAACTACAAATTTCTAATTTAGCTGAAGGAAAATCAAGCAAGATGAAAAGGTAATTTTAAAT
TAGAGAACACAAATAAAATGTATTAGTGAATAAATGCTTCTCTAGATCCATATTAATAAACATGAGCATCTAACC
CCTCCTTTCTTAGGCTAGACACCAAGATATTTCAGCCAGCCTTTATCATTCCTCTTACTTTATCCTTTTTCCTTA
AGTATTGGTGGTCACTACTATTGAGTTTCTTCCTTAACACTGATTAAATGATCTTAACTCCCTCAGCTAAAACTG
GCATTACTGACTCCCAGCTATATTTCTCCAGACTTGCATTTTTTTTTTTTTTTTGAGACAGGGTCTCACTGTCG
CCCAGGCTGGAGTGCAGTGGCGTGATCTCAGTTCACTGCTGCTTTCCCTCCTGGGCTCAAGCAGTTCTCCCACCT
CAGCCTCTCGACTAACAGGGACTATAATCTTGCAGCACCATGCCGAGCTAATTTTATTTTTGTAGAGATGAGCT
CTCACTATGTCACCCAGGTTCGTCTCAAACTCCTGAACCCTAGTAATTCTCCTATCTCAGCCTCCCAAAGTGCTA
GGGTTACAGACATGAGCCACTGTGCCTGTCTAGACTTGTACTTTCAACTGTCCATTTCTCCCTGTCTGTCCCATG
GGCACTCATGAAAAAACAGAATGCTCCCAACTTTATTCATCTTCCAAGCCTGTAGCTCTTGGTATACTCACTGTT
GCAAGTCAGAAGCTTGATTTCATCATTGATGTTTTTCTCACGTTTCACATCTCACTCATCACCAAGTCATGTTGG
TGTTAATTTCTGATTAACCCTTGAATTTACCGTCTTCTCATCCTCTGTACAAAAGCCTCAAGTGAGGGTCAAATT
CAACATTATCCTGATCTAGACAGCCCCCATTCTCAATCCACCCTTTTCCAAGTTGATTGCCCAAGGACTTCTAAC
AATAAACTCTCTTTTGCACCACAGACTTCTTTGAAAATATACATGCTGTTGACCCTCTCTGTAGAAAACCGCACA
CATAAAACTTACCAACAGATTTCATTGGTTCTTGGGTTCTCCCGAAGCCTATCCATGGTTTATAGATTAAGAATT
GATGAGGTAGCTGGGCACAGTGGCTCACACCTACGATCACAGCACTTCGGGAGGCTGAAGCAAGCAGATCACTTG
AGGTCAGGAGTTTGAGACCAGCCTGGCCAACATGGTGAAACCCTGTCTCTACTAAAAATACAAAAAGTAGCCAGC
CGTGATGACAGGCACCTGTAATCCCAGCTACTCGGGAGGCTGAGGCATGAGAATTGCTTGAACCCGGGAGGCGGA
GGTTGCAGTGAGCCTGGATCATGCCACTGCACTCCAACCTGGGCAGCAGAGCAAGACTCTGTCTCAAAAGGGGAA
AAAAAAAATTGCTGATGTGACCCATGAAGGGAACTCATTTCCTCGTAATTTTGGACTGCCACACATTGGTACCT
TTAGTTCTCTGAAGGCCCACGTTTTTATCATTAAGACCTATTTGTTAGCTAGTAGAGCTTTATGTTCGCTGTCCA
TGAAACCTTCTGTAACCACAGTGACTACAAGTAGTTCTTTCTCTATTGAATTATTAGGTCCAGAATAGAAGATGT
CATTGTACACTTTATTTCCCTCACACTGTGTTATGCTCTGATGTGCTATGCTTAGCTATCTGTCAGAGATTAGTA
AATTATAAAACTCATGTGTACTACTTAAGTTTATATCTTATGCTAGTTTATAAGAACAATTAAAAGGACTTAGAA
GATTAAAAAAAAAAAAAAAAAAA
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FIGURE 63

MATAEVLNIGKKLYEGKTKEVYELLDSPGKVLLQSKDQITAGNAARKNHLEGKAAISNKITSCIFQLLQEAGIKT
AFTRKCGETAFIAPQCEMIPIEWVCRRIATGSFLKRNPGVKEGYKFYPPKVELFFKDDANNDPQWSEEQLIAAKF
CFAGLLIGQTEVDIMSHATQAIFEILEKSWLPQNCTLVDMKIEFGVDVTTKEIVLADVIDNDSWRLWPSGDRSQQ
KDKQSYRDLKEVTPEGLQMVKKNFEWVAERVELLLKSESQCRVVVLMGSTSDLGHCEKIKKACGNFGIPCELRVT
SAHKGPDETLRIKAEYEGDGIPTVFVAVAGRSNGLGPVMSGNTAYPVISCPPLTPDWGVQDVWSSLRLPSGLGCS
TVLSPEGSAQFAAQIFGLSNHLVWSKLRASILNTWISLKQADKKIRECNL

FIGURE 64

TCGCTGCGAAGGACATTTGGGCTGTGTGTGCGACGCGGGTCGGAGGGGCAGTCGGGGGAACCGCGAAGAAGCCGA
GGAGCCCGGAGCCCCGCGTGACGCTCCTCTCTCAGTCCAAAAGCGGCTTTTGGTTCGGCGCAGAGAGACCCGGGG
GTCTAGCTTTTCCTCGAAAAGCGCCGCCCTGCCCTTGGCCCCGAGAACAGACAAAGAGCACCGCAGGGCCGATCA
CGCTGGGGGCGCTGAGGCCGGCC**ATG**GTCATGGAAGTGGGCACCCTGGACGCTGGAGGCCTGCGGGCGCTGCTGG
GGGAGCGAGCGGCGCAATGCCTGCTGCTGGACTGCCGCTCCTTCTTCGCTTTCAACGCCGGCCACATCGCCGGCT
CTGTCAACGTGCGCTTCAGCACCATCGTGCGGCGCCGGGCCAAGGGCGCCATGGGCCTGGAGCACATCGTGCCCA
ACGCCGAGCTCCGCGGCCGCCTGCTGGCCGGCGCCTACCACGCCGTGGTGTTGCTGGACGAGCGCAGCGCCGCCC
TGGACGGCGCCAAGCGCGACGGCACCCTGGCCCTGGCGGCCGGCGCGCTCTGCCGCGAGGCGCGCGCCGCGCAAG
TCTTCTTCCTCAAAGGAGGATACGAAGCGTTTTCGGCTTCCTGCCCGGAGCTGTGCAGCAAACAGTCGACCCCCA
TGGGGCTCAGCCTTCCCCTGAGTACTAGCGTCCCTGACAGCGCGGAATCTGGGTGCAGTTCCTGCAGTACCCCAC
TCTACGATCAGGGTGGCCCGGTGGAAATCCTGCCCTTTCTGTACCTGGGCAGTGCGTATCACGCTTCCCGCAAGG
ACATGCTGGATGCCTTGGGCATAACTGCCTTGATCAACGTCTCAGCCAATTGTCCCAACCATTTTGAGGGTCACT
ACCAGTACAAGAGCATCCCTGTGGAGGACAACCACAAGGCAGACATCAGCTCCTGGTTCAACGAGGCCATTGACT
TCATAGACTCCATCAAGAATGCTGGAGGAAGGGTGTTTGTCCACTGCCAGGCAGGCATTTCCCGGTCAGCCACCA
TCTGCCTTGCTTACCTTATGAGGACTAATCGAGTCAAGCTGGACGAGGCCTTTGAGTTTGTGAAGCAGAGGCGAA
GCATCATCTCTCCCAACTTCAGCTTCATGGGCCAGCTGCTGCAGTTTGAGTCCCAGGTGCTGGCTCCGCACTGTT
CGGCAGAGGCTGGGAGCCCCGCCATGGCTGTGCTCGACCGAGGCACCTCCACCACCACCGTGTTCAACTTCCCCG
TCTCCATCCCTGTCCACTCCACGAACAGTGCGCTGAGCTACCTTCAGAGCCCCATTACGACCTCTCCCAGCTGC**T**
GAAGGCCACGGGAGGTGAGGCTCTTCACATCCCATTGGGACTCCATGCTCCTTGAGAGGAGAAATGCAATAACT
CTGGGAGGGGCTCGAGAGGGCTGGTCCTTATTTATTTAACTTCACCCGAGTTCCTCTGGGTTTCTAAGCAGTTAT
GGTGATGACTTAGCGTCAAGACATTTGCTGAACTCAGCACATTCGGGACCAATATATAGTGGGTACATCAAGTCC
ATCTGACAAAATGGGGCAGAAGAGAAAGGACTCAGTGTGTGATCCGGTTTCTTTTTGCTCGCCCCTGTTTTTTGT
AGAATCTCTTCATGCTTGACATACCTACCAGTATTATTCCCGACGACACATATACATATGAGAATATACCTTATT
TATTTTTGTGTAGGTGTCTGCCTTCACAAATGTCATTGTCTACTCCTAGAAGAACCAAATACCTCAATTTTTGTT
TTTGAGTACTGTACTATCCTGTAAATATATCTTAAGCAGGTTTGTTTTCAGCACTGATGGAAAATACCAGTGTTG
GGTTTTTTTTAGTTGCCAACAGTTGTATGTTTGCTGATTATTTATGACCTGAAATAATATATTTCTTCTTCTAA
GAAGACATTTTGTTACATAAGGATGACTTTTTTATACAATGGAATAAATTATGGCATTTCTATTG

FIGURE 65

MVMEVGTLDAGGLRALLGERAAQCLLLDCRSFFAFNAGHIAGSVNVRFSTIVRRRAKGAMGLEHIVPNAELRGRL
LAGAYHAVVLLDERSAALDGAKRDGTLALAAGALCREARAAQVFFLKGGYEAFSASCPELCSKQSTPMGLSLPLS
TSVPDSAESGCSSCSTPLYDQGGPVEILPFLYLGSAYHASRKDMLDALGITALINVSANCPNHFEGHYQYKSIPV
EDNHKADISSWFNEAIDFIDSIKNAGGRVFVHCQAGISRSATICLAYLMRTNRVKLDEAFEFVKQRRSIISPNFS
FMGQLLQFESQVLAPHCSAEAGSPAMAVLDRGTSTTTVFNFPVSIPVHSTNSALSYLQSPITTSPSC

FIGURE 66

TGTCGGGGACGGTAACCGGGACCCGTGCTCTGCTCCTGTCGCCTTCGCCTCCTGAATCCCTAGCCAT**ATG**CGTGA
GTGCATCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGCAATGCCTGCTGGGAGCTCTACTGCCTGGAACA
CGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATTGGGGGAGGAGATGACTCCTTCAACACCTTCTT
CAGTGAGACGGGCGCTGGCAAGCACGTGCCCCGGGCTGTGTTTGTAGACTTGGAACCCACAGTCATTGATGAAGT
TCGCACTGGCACCTACCGCCAGCTCTTCCACCCTGAGCAGCTCATCACAGGCAAGGAAGATGCTGCCAATAACTA
TGCCCGAGGGCACTACACCATTGGCAAGGAGATCATTGACCTTGTGTTGGACCGAATTCGCAAGCTGGCTGACCA
GTGCACCCGTCTTCAGGGCTTCTTGGTTTTCCACAGCTTTGGTGGGGGAACTGGTTCTGGGTTCACCTCCCTGCT
CATGGAACGCCTGTCAGTTGATTATGGCAAGAAATCCAAGCTGGAGTTCTCCATTTACCCGGCACCCCAGGTTTC
CACAGCTGTAGTTGAGCCCTACAACTCCATCCTCACCACCCACACCACCCTGGAGCACTCTGATTGTGCCTTCAT
GGTAGACAATGAGGCCATCTATGACATCTGTCGTAGAAACCTCGATATCGAGCGCCCAACCTACACTAACCTTAA
CCGCCTTATTAGCCAGATTGTGTCCTCCATCACTGCTTCCCTGAGATTTGATGGAGCCCTGAATGTTGACCTGAC
AGAATTCCAGACCAACCTGGTCCCCTACCCCCGCATCCACTTCCCTCTGGCCACATATGCCCCTGTCATCTCTGC
TGAGAAAGCCTACCATGAACAGCTTTCTGTAGCAGACATCACCAATGCTTGCTTTGAGCCAGCCAACCAGATGGT
GAAATGTGACCCTGGCCATGGTAAATACATGGCTTGCTGCCTGTTGTACCGTGGTGACGTGGTTCCCAAAGATGT
CAATGCTGCCATTGCCACCATCAAAACCAAGCGCACGATCCAGTTTGTGGATTGGTGCCCCACTGGCTTCAAGGT
TGGCATCAACTACCAGCCTCCCACTGTGGTGCCTGGTGGAGACCTGGCCAAGGTACAGAGAGCTGTGTGCATGCT
GAGCAACACCACAGCCATTGCTGAGGCCTGGGCTCGCCTGGACCACAAGTTTGACCTGATGTATGCCAAGCGTGC
CTTTGTTCACTGGTACGTGGGTGAGGGGATGGAGGAAGGCGAGTTTTCAGAGGCCCGTGAAGATATGGCTGCCCT
TGAGAAGGATTATGAGGAGGTTGGTGTGGATTCTGTTGAAGGAGAGGGTGAGGAAGAAGGAGAGGAATAC**TAA**TT
ATCCATTCCTTTTGGCCCTGCAGCATGTCATGCTCCCAGAATTTCAGCTTCAGCTTAACTGACAGATGTTAAAGC
TTTCTGGTTAGATTGTTTTCACTTGGTGATCATGTCTTTTCCATGTGTACCTGTAATATTTTTCCATCATATCTC
AAAGTAAAGTCATTAACATCA

FIGURE 67

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDLEPTVI
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIRKLADQCTRLQGFLVFHSFGGGTGSGFT
SLLMERLSVDYGKKSKLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT
NLNRLISQIVSSITASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISAEKAYHEQLSVADITNACFEPAN
QMVKCDPGHGKYMACCLLYRGDVVPKDVNAAIATIKTKRTIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV
CMLSNTTAIAEAWARLDHKFDLMYAKRAFVHWYVGEGMEEGEFSEAREDMAALEKDYEEVGVDSVEGEGEEEGEE
Y

FIGURE 68

ATCTCTCTCGGGTGGAGTCCTTCTGACAGCTGGTGCGCCTGCCCGGGAACATCCTCCTGGACTCAATC**ATG**GCTT
GTGGTCTGGTCGCCAGCAACCTGAATCTCAAACCTGGAGAGTGCCTTCGAGTGCGAGGCGAGGTGGCTCCTGACG
CTAAGAGCTTCGTGCTGAACCTGGGCAAAGACAGCAACAACCTGTGCCTGCACTTCAACCCTCGCTTCAACGCCC
ACGGCGACGCCAACACCATCGTGTGCAACAGCAAGGACGGCGGGGCCTGGGGGACCGAGCAGCGGGAGGCTGTCT
TTCCCTTCCAGCCTGGAAGTGTTGCAGAGGTGTGCATCACCTTCGACCAGGCCAACCTGACCGTCAAGCTGCCAG
ATGGATACGAATTCAAGTTCCCCAACCGCCTCAACCTGGAGGCCATCAACTACATGGCAGCTGACGGTGACTTCA
AGATCAAATGTGTGGCCTTTGAC**TGA**AATCAGCCAGCCCATGGCCCCCAATAAAGGCAGCTGCCTCTGCTCCCCT
G

FIGURE 69

MACGLVASNLNLKPGECLRVRGEVAPDAKSFVLNLGKDSNNLCLHFNPRFNAHGDANTIVCNSKDGGAWGTEQRE
AVFPFQPGSVAEVCITFDQANLTVKLPDGYEFKFPNRLNLEAINYMAADGDFKIKCVAFD

FIGURE 70

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TCAGAAGCTGATTGCATCCAAAGCAAATGACCACCAAGGTTTTTATCTTCTAAACAGTATAATAGAGCACATGCC
TCCTGAATCAGTTGACCAATATAGGAAACAAATCTTCATTCTGCTATTCCAGAGACTTCAGAATTCCAAAACAAC
CAAGTTTATCAAGAGTTTTTTAGTCTTTATTAATTTGTATTGCATAAAATATGGGGCACTAGCACTACAAGAAAT
ATTTGATGGTATACAACCAAAAATGTTTGGAATGGTTTTGGAAAAAATTATTATTCCTGAAATTCAGAAGGTATC
TGGAAATGTAGAGAAAAAGATCTGTGCGGTTGGCATAACCAAATTACTAACAGAATGTCCCCCAATGATGGACAC
TGAGTATACCAAACTGTGGACTCCATTATTACAGTCTTTGATTGGTCTTTTTGAGTTACCCGAAGATGATACCAT
TCCTGATGAGGAACATTTTATTGACATAGAAGATACACCAGGATATCAGACTGCCTTCTCACAGTTGGCATTTGC
TGGGAAAAAAGAGCATGATCCTGTAGGTCAAATGGTGAATAACCCCAAAATTCACCTGGCACAGTCACTTCACAA
GTTGTCTACCGCCTGTCCAGGAAGGACCTATTTTTGAAGGCATAAAAGCAGTTGAGTTTCTGGAGAATTTTTGGA
TGGTGATTAATGACTTGACTGGCTGCTCTTCCCAGAGCTGTGGCAGCTCTCCCGTAGAAGATGGGGTTTGTATTG
GCGCACCAAGATCTCCAACAGCCAGTGTGTGTTTCCCATCTCTTGTAGGTTCCATCAATGGTGAGCACCAGCCTG
AATGCAGAAGCGCTCCAGTATCTCCAAGGGTACCTTCAGGCAGCCAGTGTGACACTGCTTTAAACTGCATTTTTC
TAATGGGCTAAACCCAGATGGTTTCCTAGGAAATCACAGGCTTCTGAGCACAGCTGCATTAAAACAAAGGAAGTT
CTCCTTTTGAACTTGTCACGAATTCCATCTTGTAAAGGATATTAAATGTTGCTTTAACCTGAACCTTGAGCAAAT
TAGTTGGTTTGTGTGATCATACAGTTATGTGGGTGGCTTCTAGTTTGCAACTTCAAGGGACAAGTATTAATAGTT
CAGTGTATGGCGTTGGTTTGTGTTGAGCGTTTGCACGGTTTGGATAATCTTAAATTTTGACGGACACTGTGGAGA
CTTTXCTGTTACTAAATCCTTTTGTTTTGAAGCTGTTGCTATTTGTATTTCTCTTGTCCTTTATATTTTTTGTCT
GTTTATTTACGCTTTTATTGGAAATGTGAATAAGTAAAGAATTACTTGTGTTACTTGCCAAGCAGTGCACATTTC
ATAGTTTCAAATCTGTAATCAGCAATAAAAATCCTAAAATATGTACCTAAAAAAAAAAAAAAAAAAAAA
```

FIGURE 71

CGGGATGCGGCGCGCCGCGCGTTGAACCTCCTTGGCCTGGGCGAAGCTGTGTGGACCAAGCAAGTCAGGAGTGTG
GCC**ATG**TTTTCTGAGCAGGCTGCCCAGAGGGCCCACACTCTACTGTCCCCACCATCAGCCAACAATGCCACCTTT
GCCCGGGTGCCAGTGGCAACCTACACCAACTCCTCACAACCCTTCCGGCTAGGAGAGCGCAGCTTTAGCCGGCAG
TATGCCCACATTTATGCCACCCGCCTCATCCAAATGAGACCCTTCCTGGAGAACCGGGCCCAGCAGCACTGGGGC
AGTGGAGTGGGAGTGAAGAAGCTGTGTGAACTGCAGCCTGAGGAGAAGTGCTGTGTGGTGGGCACTCTGTTCAAG
GCCATGCCGCTGCAGCCCTCCATCCTGCGGGAGGTCAGCGAGGAGCACAACCTGCTCCCCCAGCCTCCTCGGAGT
AAATACATACACCCAGATGACGAGCTGGTCTTGGAAGATGAACTGCAGCGTATCAAACTAAAAGGCACCATTGAC
GTGTCAAAGCTGGTTACGGGGACTGTCCTGGCTGTGTTTGGCTCCGTGAGAGACGACGGGAAGTTTCTGGTGGAG
GACTATTGCTTTGCTGACCTTGCTCCCCAGAAGCCCGCACCCCCACTTGACACAGATAGGTTTGTGCTACTGGTG
TCCGGCCTGGGCCTGGGTGGCGGTGGAGGCGAGAGCCTGCTGGGCACCCAGCTGCTGGTGGATGTGGTGACGGGG
CAGCTTGGGGACGAAGGGGAGCAGTGCAGCGCCGCCCACGTCTCCCGGGTTATCCTCGCTGGCAACCTCCTCAGC
CACAGCACCCAGAGCAGGGATTCTATCAATAAGGCCAAATACCTCACCAAGAAAACCCAGGCAGCCAGCGTGGAG
GCTGTTAAGATGCTGGATGAGATCCTCCTGCAGCTGAGCGCCTCAGTGCCCGTGGACGTGATGCCAGGCGAGTTT
GATCCCACCAATTACACGCTCCCCCAGCAGCCCCTCCACCCCTGCATGTTCCCGCTGGCCACTGCCTACTCCACG
CTCCAGCTGGTCACCAACCCCTACCAGGCCACCATTGATGGAGTCAGATTTTTGGGGACATCAGGACAGAACGTG
AGTGACATTTTCCGATACAGCAGCATGGAGGATCACTTGGAGATCCTGGAGTGGACCCTGCGGGTCCGTCACATC
AGCCCCACAGCCCCGGACACTCTAGGTTGTTACCCCTTCTACAAAACTGACCCGTTCATCTTCCCAGAGTGCCCG
CATGTCTACTTTTGTGGCAACACCCCCAGCTTTGGCTCCAAAATCATCCGAGGTCCTGAGGACCAGACAGTGCTG
TTGGTGACTGTCCCTGACTTCAGTGCCACGCAGACCGCCTGCCTTGTGAACCTGCGCAGCCTGGCCTGCCAGCCC
ATCAGCTTCTCGGGCTTCGGGGCAGAGGACGATGACCTGGGAGGCCTGGGGCTGGGCCCC**TGA**CTCAAAAAAGTG
GTTTTGACCAGAGAGGCCCAGATGGAGGCTGTTCATTCCCTGCAGTGTCGGCATTGTAAATAAAGCCTGGCACTT
GCTGATGCG

FIGURE 72

MFSEQAAQRAHTLLSPPSANNATFARVPVATYTNSSQPFRLGERSFSRQYAHIYATRLIQMRPFLENRAQQHWGS
GVGVKKLCELQPEEKCCVVGTLFKAMPLQPSILREVSEEHNLLPQPPRSKYIHPDDELVLEDELQRIKLKGTIDV
SKLVTGTVLAVFGSVRDDGKFLVEDYCFADLAPQKPAPPLDTDRFVLLVSGLGLGGGGGESLLGTQLLVDVVTGQ
LGDEGEQCSAAHVSRVILAGNLLSHSTQSRDSINKAKYLTKKTQAASVEAVKMLDEILLQLSASVPVDVMPGEFD
PTNYTLPQQPLHPCMFPLATAYSTLQLVTNPYQATIDGVRFLGTSGQNVSDIFRYSSMEDHLEILEWTLRVRHIS
PTAPDTLGCYPFYKTDPFIFPECPHVYFCGNTPSFGSKIIRGPEDQTVLLVTVPDFSATQTACLVNLRSLACQPI
SFSGFGAEDDDLGGLGLGP

FIGURE 73

GGCACGAGGGCGGCGGCGGCGGTAGAGGCGGCGGCGGCGGCGGCAGCGGGCTCGGAGGCAGCGGTTGGGCTCGCG
GCGAGCGGACGGGGTCGAGTCAGTGCGTTCGCGCGAGTTGGAATCGAAGCCTCTTAAA**ATG**GCAGATGACTTGGA
CTTCGAGACAGGAGATGCAGGGGCCTCAGCCACCTTCCCAATGCAGTGCTCAGCATTACGTAAGAATGGCTTTGT
GGTGCTCAAAGGCCGGCCATGTAAGATCGTCGAGATGTCTACTTCGAAGACTGGCAAGCACGGCCACGCCAAGGT
CCATCTGGTTGGTATTGACATCTTTACTGGGAAGAAATATGAAGATATCTGCCCGTCAACTCATAATATGGATGT
CCCCAACATCAAAAGGAATGACTTCCAGCTGATTGGCATCCAGGATGGGTACCTATCACTGCTCCAGGACAGCGG
GGAGGTACGAGAGGACCTTCGTCTCCCTGAGGGAGACCTTGGCAAGGAGATTGAGCAGAAGTACGACTGTGGAGA
AGAGATCCTGATCACGGTGCTGTCTGCCATGACAGAGGAGGCAGCTGTTGCAATCAAGGCCATGGCAAAA**TAA**CT
GGCTCCCAGGATGGCGGTGGTGGCAGCAGTGATCCTCTGAACCTGCAGAGGCCCCCTCCCCGAGCCTGGCCTGGC
TCTGGCCCGGTCCTAAGCTGGACTCCTCCTACACAATTTATTTGACGTTTTATTTTGGTTTTCCCCACCCCCTCA
ATCTGTCGGGGAGCCCCTGCCCTTCACCTAGCTCCCTTGGCCAGGAGCGAGCGAAGCTGTGGCCTTGGTGAAGCT
GCCCTCCTCTTCTCCCCTCACACTACAGCCCTGGTGGGGGAGAAGGGGGTGGGTGCTGCTTGTGGTTTAGTCTTT
TTTTTTTTTTTTTTTTTTTTTAAATTCAATCTGGAATCAGAAAGCGGTGGATTCTGGCAAATGGTCCTTGTGC
CCTCCCCACTCATCCCTGGTCTGGTCCCCTGTTGCCCATAGCCCTTTACCCTGAGCACCACCCCAACAGACTGGG
GACCAGCCCCCTCGCCTGCCTGTGTCTCTCCCCAAACCCCTTTAGATGGGGAGGGAAGAGGAGGAGAGGGGAGGG
GACCTGCCCCCTCCTCAGGCATCTGGGAGGGCCCTGCCCCCATGGGCTTTACCCTTCCCTGCGGGCTCTCTCCCC
GACACATTTGTTAAAATCAAACCTGAATAAAACTACAAGTTTAATATGAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAA

FIGURE 74

MADDLDFETGDAGASATFPMQCSALRKNGFVVLKGRPCKIVEMSTSKTGKHGHAKVHLVGIDIFTGKKYEDICPS
THNMDVPNIKRNDFQLIGIQDGYLSLLQDSGEVREDLRLPEGDLGKEIEQKYDCGEEILITVLSAMTEEAAVAIK
AMAK

FIGURE 75

AGCGAGTCCTTCTTTTCCTGACTGCAGCTCTTTTCATTTTGCCATCCTTCTCCAGCTCC**ATG**ATGGTTCTGCAGG
TTTCTGCGGCCCCCCGGACAGTGGCTCTGACGGCGTTACTGATGGTGCTGCTCACATCTGTGGTCCAGGGCAGGG
CCACTCCAGAGAATTACGTGTACCAGGGACGGCAGGAATGCTACGCGTTTAATGGGACACAGCGCTTCCTGGAGA
GATACATCTACAACCGGGAGGAGTACGCGCGCTTCGACAGCGACGTGGGGGGAGTTCCGGGCGGTGACGGAGCTGG
GGCGGCCTGCTGCGGAGTACTGGAACAGCCAGAAGGACATCCTGGAGGAGAAGCGGGCAGTGCCGGACAGGGTAT
GCAGACACAACTACGAGCTGGACGAGGCCGTGACCCTGCAGCGCCGAGTCCAGCCTAAGGTGAACGTTTCCCCCT
CCAAGAAGGGGCCCCTGCAGCACCACAACCTGCTTGTCTGCCACGTGACAGATTTCTACCCAGGCAGCATTCAAG
TCCGATGGTTCCTGAATGGACAGGAGGAAACAGCTGGGGTCGTGTCCACCAACCTGATCCGTAATGGAGACTGGA
CCTTCCAGATCCTGGTGATGCTGGAAATGACCCCCCAGCAGGGAGACGTCTACATCTGCCAAGTGGAGCACACCA
GCCTGGACAGTCCTGTCACCGTGGAGTGGAAGGCACAGTCTGATTCTGCCCAGAGTAAGACATTGACGGGAGCTG
GGGGCTTCGTGCTGGGGCTCATCATCTGTGGAGTGGGCATCTTCATGCACAGGAGGAGCAAGAAAGTTCAACGAG
GATCTGCA**TAA**ACAGGGTTCCTGACCTCACCGAAAAGACTAATGTGCCTTAGAACAAGCATTTGCTGTGTTTTGT
TAACACCTGGTTCCAGGACAGACCCTCAGCTTCCCAAGAGGATACTGCTGCCAAGAAGTTGCTCTGAAGTCAGTT
TCTATCGTTCTGCTCTTTGATTCAAAGCACTGTTTCTCTCACTGGGCCTCCAACCATGTTCCCTTCTTCTTAGCA
CCACAAATAATCAAAACCCAACATAAGTGTTTGCTTTCCTTTAAAAATATGCATCAAATCGTCTCTCATTACTTT
TCTCTGAGGGTTTTAGTAAACAGTAGGAGTTAATAAAGAAGTTCATTTTGGTTTACACGTAGGAAAGAAGAGAAG
CATCAAAGTGGAGATATGTTAACTATTGTATAATGTGGCCTGTTATACATGACACTCTTCTGAATTGACTGTATT
TCAGTGAGCTGCCCCCAAATCAAGTTTAGTGCCCTCATCCATTTATGTCTCAGACCGCTATTCTTAACTATTCAA
TGGTGAGCAGACTGCAAATCTGCCTGATAGGACCCATATTCCCACAGCACTAATTCAACATATATCTTACTGAGA
GCATGTTTTATCATTACCATTAAGAAGTTAAATGAACATCAGAATTTAAAATCATAAATATAATCTAATACACTT
T

FIGURE 76

MMVLQVSAAPRTVALTALLMVLLTSVVQGRATPENYVYQGRQECYAFNGTQRFLERYIYNREEYARFDSDVGEFR
AVTELGRPAAEYWNSQKDILEEKRAVPDRVCRHNYELDEAVTLQRRVQPKVNVSPSKKGPLQHHNLLVCHVTDFY
PGSIQVRWFLNGQEETAGVVSTNLIRNGDWTFQILVMLEMTPQQGDVYICQVEHTSLDSPVTVEWKAQSDSAQSK
TLTGAGGFVLGLIICGVGIFMHRRSKKVQRGSA

FIGURE 77

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GGCACGAGGGGCGGCCGGTGAGGGGGAAGCAAGTCTGGTCTCTGTGATTGAAGAAGTCGGCTCTGGGCTCCAGTG
CGGGAATCACACACATACCTCAGAATGCCGGGTCTAAGTTGTAGATTTTATCAACACAAATTTCCTGAGGTGGAA
GATGTAGTGATGGTGAATGTCAGATCCATTGCTGAAATGGGGGCTTATGTCAGCTTGCTGGAATACAACAACATT
GAAGGCATGATTCTTCTTAGTGAATTATCCAGAAGGCGTATCCGTTCTATCAACAAACTCATCCGAATTGGCAGG
AATGAGTGTGTGGTTGTCATTAGGGTGGACAAAGAAAAGGATATATTGATTTGTCAAAAAGAAGAGTTTCTCCA
GAGGAAGCAATCAAATGTGAAGACAAATTCACAAAATCCAAAACTGTTTATAGCATTCTTCGTCATGTTGCTGAG
GTGTTAGAATACACCAAGGATGAGCAGCTGGAAAGCCTATTCCAGAGGACTGCCTGGGTCTTTGATGACAAGTAC
AAGAGACCTGGATATGGTGCCTATGATGCATTTAAGCATGCAGTCTCAGACCCATCTATTTTGGATAGTTTAGAT
TTGAATGAAGATGAACGGGAAGTACTCATTAATAATATTAATAGGCGCTTGACCCCACAGGCTGTCAAAATTCGA
GCAGATATTGAAGTGGCTTGTTATGGTTATGAAGGCATTGATGCTGTAAAAGAAGCCCTAAGAGCAGGTTTGAAT
TGTTCTACAGAAAACATGCCCATTAAGATTAATCTAATAGCTCCTCCTCGGTATGTAATGACTACGACAACCCTG
GAGAGAACAGAAGGCCTTTCTGTCCTCAGTCAAGCTATGGCTGTTATCAAAGAGAAGATTGAGGAAAAGAGGGGT
GTGTTCAATGTTCAAATGGAGCCCAAAGTGGTCACAGATACAGATGAGACTGAACTTGCGAGGCAGATGGAGAGG
CTTGAAAGAGAAAATGCCGAAGTGGATGGAGATGATGATGCAGAAGAAATGGAAGCCAAAGCTGAAGATTAACTT
TGTGGGAAACAGAGTCCAATTTAAGGAACACAGAGCAGCGCTTCCTGGCTGTAAATCCTAGACTTGAAAGTTTTC
CAGTATTGAAAACTTCAAAGCTGAATATTTTTATTTCTAAGTATTTAAATGTTCTAACAGATCAGAACATGAAA
TGCCCTCCTAAATGTCAGCTGTTGTCACACAGTAGCTCCAACACTTTGAGCATTTTTAAGGGAGTGGCCTCATTT
CACTAGAGACAAATCTTTAAGAATAGTTCTAAAATTGGGCTTGTGATTTCCATTTCTGATGTCTCCAGATTGGCA
CCCCTTTCTAGTTCAATGCCTCACGAGATTTGCCAGGGGCATCCAAGGCAAACAATCCCAATCTTTCTATATAAA
ATGTATTCAAGCAAACATCAAATAAATTTCTGGGATATTTAACTATAGGCTTCTTCCTTCTTGTCACCAGTTAAA
AGCATTTTAATACTAAGACCCTAATTCTTTTATCTTTATTTTAGTCTTGATGTGGAACTGTAGGAGCAGGTGAAT
AAAGGATCTCTATAACAGATCCTTTCAAAAGAAGAGTTTTAGAGAAAATAAATTTAACTTTAACCACAGTGAAAG
TTGACCCCTTAGCGGGACAAAGCCTTAAAATGCATTGAAAGAATTAGATCGGTTCTGTGCCTTTTATCTATTTGAG
ATTGATGACAACCTGTGTGAGAGAATTTATCACACCACGTCCTTATTGGAATAATAAGCTACTTGCCTTGAGTTT
ATAATTCAGGGTGGTAAAGTATGTTTTTAAATTTTAAAAAGCAGCTGCATTTTTTATTTAGTTGGAATATCACCC
AATTTTTATTTTTATTGCTATTAAAATATCCACTAGATGCCACCTAGAGCTCCAGTTCTTTATAACAAAACAGG
GATCTGTTTGAACACTTACTGTTGTTTTTTTTTTTTACATGTTTCCATCATTTCTGTCTTTAAGAACTAATTCG
TACATAATAAGTTTCATAGGTAACACATTATATTCTCTTATGATACTTGAGGTACCAGTTGTATTTAATTTTATT
CATTATCCCTAGATAGCTATTAAGATACTTAGATTAGACCTAACCCACCATAGTCAATCCAAGACTAGACTACTC
AATATTAAAGGGTCTGGAAAATAGAAGAGTGTGTTGGGCAGGTAGTTTGTACCATTTATGAAGGTTTGTTCCTTT
GTTAAATTTAGCAGCCTGTACTAGCTTTTGAAATCCAGAAGTTTTAACTTCCAGTGGCTGGTTCTGAGAGAGTG
CCATGATTGCTAGCCAGCATTCCATATTGGGAATATGTAGAGGAGAACCTGGATGTACTTAAGAGTGGCATATAA
TTTTCACTTCTGTCTGTTGAGGCAAAAAAAAAACAAGTTTAGAAAGCTGGCAACATGAAGAATGCATTCAAAATA
TAACAGGTGCTTCTTTGTTGTACGCAGAGGAATTTTTTCTTTTGATTTTGTTTACTGAAATTTGTTATACTTCAA
AAGCCATAACTTGAAAAATACTGGTGGCGTCGATGGTGAGTGATTTTTATCCCACGTGGGCCTTTTGCTCAGTTC
CATGGCAATTTTGTAAATTGACCCTAGCCAGAGAATAGATCAGTATTTCACTGATACCACGAGGAAAAGAACAAA
CAAAACTTAAAAGTATTCATACACCTTGCTAACCTAAAAGACAGCAGGGACAAGATACATATGAGGACAAGGTAT
ACACCCAGTTCTGAATAACTTGAAGAACAGGCTTGGCAAAGAAGTAAGTTTATCCAAATCTTGAATTTCTGCCAG
GCATGGTAGCTCATGCCTGTAACCCTGGCACTTAAGGGGCCAAGGCAGGAGGATCACTTGAGGCCAGTGAGCTGT
GATCACTCCAGTGCACTCGAGCCTGGGTGACAGGGCAAGACCCTGTCTCAAAAAAAAAAAAAAAAAA
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FIGURE 78

MPGLSCRFYQHKFPEVEDVVMVNVRSIAEMGAYVSLLEYNNIEGMILLSELSRRRIRSINKLIRIGRNECVVVIR
VDKEKGYIDLSKRRVSPEEAIKCEDKFTKSKTVYSILRHVAEVLEYTKDEQLESLFQRTAWVFDDKYKRPGYGAY
DAFKHAVSDPSILDSLDLNEDEREVLINNINRRLTPQAVKIRADIEVACYGYEGIDAVKEALRAGLNCSTENMPI
KINLIAPPRYVMTTTTLERTEGLSVLSQAMAVIKEKIEEKRGVFNVQMEPKVVTDTDETELARQMERLERENAEV
DGDDDAEEMEAKAED

FIGURE 79

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GGACACCGGGCCATGCACGCCCCCAACTGAAGCTGCATCTCAAAGCCGAAGATTCCAGCAGCCCAGGGGATTTCA
AAGAGCTCAGACTCAGAGGAACATCTGCGGAGAGACCCCCGAAGCCCTCTCCAGGGCAGTCCTCATCCAGACGCT
CCGCTAGTGCAGACAGGAGCGCGCAGTGGCCCCGGCTCGCCGCGCCATGGAGCGGATCCCCAGCGCGCAACCACC
CCCCGCCTGCCTGCCCAAAGCACCGGGACTGGAGCACGGAGACCTACCAGGGATGTACCCTGCCCACATGTACCA
AGTGTACAAGTCAAGACGGGGAATAAAGCGGAGCGAGGACAGCAAGGAGACCTACAAATTGCCGCACCGGCTCAT
CGAGAAAAAGAGACGTGACCGGATTAACGAGTGCATCGCCCAGCTGAAGGATCTCCTACCCGAACATCTCAAACT
TACAACTTTGGGTCACTTGGAAAAAGCAGTGGTTCTTGAACTTACCTTGAAGCATGTGAAAGCACTAACAAACCT
AATTGATCAGCAGCAGCAGAAAATCATTGCCCTGCAGAGTGGTTTACAAGCTGGTGAGCTGTCAGGGAGAAATGT
CGAAACAGGTCAAGAGATGTTCTGCTCAGGTTTCCAGACATGTGCCCGGGAGGTGCTTCAGTATCTGGCCAAGCA
CGAGAACACTCGGGACCTGAAGTCTTCGCAGCTTGTCACCCACCTCCACCGGGTGGTCTCGGAGCTGCTGCAGGG
TGGTACCTCCAGGAAGCCATCAGACCCAGCTCCCAAAGTGATGGACTTCAAGGAAAAACCCAGCTCTCCGGCCAA
AGGTTCGGAAGGTCCTGGGAAAAACTGCGTGCCAGTCATCCAGCGGACTTTCGCTCACTCGAGTGGGGAGCAGAG
CGGCAGCGACACGGACACAGACAGTGGCTATGGAGGAGAATCGGAGAAGGGCGACTTGCGCAGTGAGCAGCCGTG
CTTCAAAAGTGACCACGGACGCAGGTTCACGATGGGAGAAAGGATCGGCGCAATTAAGCAAGAGTCCGAAGAACC
CCCCACAAAAAGAACCGGATGCAGCTTTCGGATGATGAAGGCCATTTCACTAGCAGTGACCTGATCAGCTCCCC
GTTCCTGGGCCCACACCCACACCAGCCTCCTTTCTGCCTGCCCTTCTACCTGATCCCACCTTCAGCGACTGCCTA
CCTGCCCATGCTGGAGAAGTGCTGGTATCCCACCTCAGTGCCAGTGCTATACCCAGGCCTCAACGCCTCTGCCGC
AGCCCTCTCTAGCTTCATGAACCCAGACAAGATCTCGGCTCCCTTGCTCATGCCCCAGAGACTCCCTTCTCCCTT
GCCAGCTCATCCGTCCGTCGACTCTTCTGTCTTGCTCCAAGCTCTGAAGCCAATCCCCCCTTTAAACTTAGAAAC
CAAAGACTAAACTCTCTAGGGGATCCTGCTGCTTTGCTTTCCTTCCTCGCTACTTCCTAAAAAGCAACAAAAAAG
TTTTTGTGAATGCTGCAAGATTGTTGCATTGTGTATACTGAGATAATCTGAGGCATGGAGAGCAGATTCAGGGTG
TGTGTGTGTGTGTGTGTGTGTGTGTGTATGTGCGTGTGCGTGCACATGTGTGCCTGCGTGTTGGTATAGGACTTT
AAAGCTCCTTTTGGCATAGGGAAGTCACGAAGGATTGCTTGACATCAGGAGACTTGGGGGGGATTGTAGCAGACG
TCTGGGCTTTTCCCCACCCAGAGAATAGCCCCCTTCGATACACATCAGCTGGATTTTCAAAAGCTTCAAAGTCTT
GGTCTGTGAGTCACTCTTCAGTTTGGGAGCTGGGTCTGTGGCTTTGATCAGAAGGTACTTTCAAAAGAGGGCTTT
CCAGGGCTCAGCTCCCAACCAGCTGTTAGGACCCCACCCTTTTGCCTTTATTGTCGACGTGACTCACCAGACGTC
GGGGAGAGAGAGCAGTCAGACCGAGCTTTCTGCTAACATGGGGAGGTAGCAGGCACTGGCATAGCACGGTAGTGG
TTTGGGGAGGTTTCCGCAGGTCTGCTCCCCACCCCTGCCTCGGAAGAATAAAGAGAATGTAGTTCCCTACTCAGG
CTTTCGTAGTGATTAGCTTACTAAGGAACTGAAAATGGGCCCCTTGTACAAGCTGAGCTGCCCCGGAGGGAGGGA
GGAGTTCCCTGGGCTTCTGGCACCTGTTTCTAGGCCTAACCATTAGTACTTACTGTGCAGGGAACCAAACCAAGG
TCTGAGAAATGCGGACACCCCGAGCGAGCACCCCAAAGTGCACAAAGCTGAGTAAAAAGCTGCCCCCTTCAAACA
GAACTAGACTCAGTTTTCAATTCCATCCTAAAACTCCTTTTAACCAAGCTTAGCTTCTCAAAGGCCTAACCAAGC
CTTGGCACCGCCAGATCCTTTCTGTAGGCTAATTCCTCTTGCCCAACGGCATATGGAGTGTCCTTATTGCTAAAA
AGGATTCCGTCTCCTTCAAAGAAGTTTTATTTTTGGTCCAGAGTACTTGTTTTCCCGATGTGTCCAGCCAGCTCC
GCAGCAGCTTTTCAAGATGCACTATGCCTGATTGCTGATCGTGTTTAACTTTTTCTTTTCCTGTTTTTATTTTG
GTATTAAGTCGTTGCCTTTATTTGTAAAGCTGTTATAAATATATATTATATAAATATATTAAAAAGGAAAATGTT
TCAGATGTTTATTTGTATAATTACTTGATTCACACAGTGAGAAAAAATGAATGTATTCCTGTTTTTGAAGAGAAG
AATAATTTTTTTTCTCTAGGGAGAGGTACAGTGTTTATATTTTGGAGCCTTCCTGAAGGTGTAAAATTGTAAAT
ATTTTTATCTATGAGTAAATGTTAAGTAGTTGTTTTAAAATACTTAATAAAATAATTCTTTTCCTGTGGAAG
```

FIGURE 80

MERIPSAQPPPACLPKAPGLEHGDLPGMYPAHMYQVYKSRRGIKRSEDSKETYKLPHRLIEKKRRDRINECIAQL
KDLLPEHLKLTTLGHLEKAVVLELTLKHVKALTNLIDQQQQKIIALQSGLQAGELSGRNVETGQEMFCSGFQTCA
REVLQYLAKHENTRDLKSSQLVTHLHRVVSELLQGGTSRKPSDPAPKVMDFKEKPSSPAKGSEGPGKNCVPVIQR
TFAHSSGEQSGSDTDTDSGYGGESEKGDLRSEQPCFKSDHGRRFTMGERIGAIKQESEEPPTKKNRMQLSDDEGH
FTSSDLISSPFLGPHPHQPPFCLPFYLIPPSATAYLPMLEKCWYPTSVPVLYPGLNASAAALSSFMNPDKISAPL
LMPQRLPSPLPAHPSVDSSVLLQALKPIPPLNLETKD

FIGURE 81

GGACACCGGGCCATGCACGCCCCCAACTGAAGCTGCATCTCAAAGCCGAAGATTCCAGCAGCCCAGGGGATTTCA
AAGAGCTCAGACTCAGAGGAACATCTGCGGAGAGACCCCCGAAGCCCTCTCCAGGGCAGTCCTCATCCAGACGCT
CCGCTAGTGCAGACAGGAGCGCGCAGTGGCCCCGGCTCGCCGCGCC**ATG**GAGCGGATCCCCAGCGCGCAACCACC
CCCCGCCTGCCTGCCCAAAGCACCGGGACTGGAGCACGGAGACCTACCAGGGATGTACCCTGCCCACATGTACCA
AGTGTACAAGTCAAGACGGGGAATAAAGCGGAGCGAGGACAGCAAGGAGACCTACAAATTGCCGCACCGGCTCAT
CGAGAAAAAGAGACGTGACCGGATTAACGAGTGCATCGCCCAGCTGAAGGATCTCCTACCCGAACATCTCAAACT
TACAACTTTGGGTCACTTGGAAAAAGCAGTGGTTCTTGAACTTACCTTGAAGCATGTGAAAGCACTAACAAACCT
AATTGATCAGCAGCAGCAGAAAATCATTGCCCTGCAGAGTGGTTTACAAGCTGGTGAGCTGTCAGGGAGAAATGT
CGAAACAGGTCAAGAGATGTTCTGCTCAGGTTTCCAGACATGTGCCCGGGAGGTGCTTCAGTATCTGGCCAAGCA
CGAGAACACTCGGGACCTGAAGTCTTCGCAGCTTGTCACCCACCTCCACCGGGTGGTCTCGGAGCTGCTGCAGGG
TGGTACCTCCAGGAAGCCATCAGACCCAGCTCCCAAAGTGATGGACTTCAAGGAAAAACCCAGCTCTCCGGCCAA
AGGTTCGGAAGGTCCTGGGAAAAACTGCGTGCCAGTCATCCAGCGGACTTTCGCTCACTCGAGTGGGGAGCAGAG
CGGCAGCGACACGGACACAGACAGTGGCTATGGAGGAGAATCGGAGAAGGGCGACTTGCGCAGTGAGCAGCCGTG
CTTCAAAAGTGACCACGGACGCAGGTTCACGATGGGAGAAAGGATCGGCGCAATTAAGCAAGAGTCCGAAGAACC
CCCCACAAAAAGAACCGGATGCAGCTTTCGGATGATGAAGGCCATTTCACTAGCAGTGACCTGATCAGCTCCCC
GTTCCTGGGCCCACACCCACACCAGCCTCCTTTCTGCCTGCCCTTCTACCTGATCCCACCTTCAGCGACTGCCTA
CCTGCCCATGCTGGAGAAGTGCTGGTATCCCACCTCAGTGCCAGTGCTATACCCAGGCCTCAACGCCTCTGCCGC
AGCCCTCTCTAGCTTCATGAACCCAGACAAGATCTCGGCTCCCTTGCTCATGCCCCAGAGACTCCCTTCTCCCTT
GCCAGCTCATCCGTCCGTCGACTCTTCTGTCTTGCTCCAAGCTCTGAAGCCAATCCCCCCTTTAAACTTAGAAAC
CAAAGAC**TAA**ACTCTAGGGGATCCTGCTGCTTTGCTTTCCTTCCTCGCTACTTCCTAAAAAGCAACAAAAAAG
TTTTTGTGAATGCTGCAAGATTGTTGCATTGTGTATACTGAGATAATCTGAGGCATGGAGAGCAGATTCAGGGTG
TGTGTGTGTGTGTGTGTGTGTGTGTATGTGCGTGTGCGTGCACATGTGTGCCTGCGTGTTGGTATAGGACTTT
AAAGCTCCTTTTGGCATAGGGAAGTCACGAAGGATTGCTTGACATCAGGAGACTTGGGGGGGATTGTAGCAGACG
TCTGGGCTTTTCCCCACCCAGAGAATAGCCCCCTTCGATACACATCAGCTGGATTTTCAAAAGCTTCAAAGTCTT
GGTCTGTGAGTCACTCTTCAGTTTGGGAGCTGGGTCTGTGGCTTTGATCAGAAGGTACTTTCAAAAGAGGGCTTT
CCAGGGCTCAGCTCCCAACCAGCTGTTAGGACCCCACCCTTTTGCCTTTATTGTCGACGTGACTCACCAGACGTC
GGGGAGAGAGAGCAGTCAGACCGAGCTTTCTGCTAACATGGGGAGGTAGCAGGCACTGGCATAGCACGGTAGTGG
TTTGGGGAGGTTTCCGCAGGTCTGCTCCCCACCCCTGCCTCGGAAGAATAAAGAGAATGTAGTTCCCTACTCAGG
CTTTCGTAGTGATTAGCTTACTAAGGAACTGAAAATGGGCCCCTTGTACAAGCTGAGCTGCCCCGGAGGGAGGGA
GGAGTTCCCTGGGCTTCTGGCACCTGTTTCTAGGCCTAACCATTAGTACTTACTGTGCAGGGAACCAAACCAAGG
TCTGAGAAATGCGGACACCCCGAGCGAGCACCCCAAAGTGCACAAAGCTGAGTAAAAAGCTGCCCCCTTCAAACA
GAACTAGACTCAGTTTTCAATTCCATCCTAAAACTCCTTTTAACCAAGCTTAGCTTCTCAAAGGCCTAACCAAGC
CTTGGCACCGCCAGATCCTTTCTGTAGGCTAATTCCTCTTGCCCAACGGCATATGGAGTGTCCTTATTGCTAAAA
AGGATTCCGTCTCCTTCAAAGAAGTTTTATTTTTGGTCCAGAGTACTTGTTTTCCCGATGTGTCCAGCCAGCTCC
GCAGCAGCTTTTCAAGATGCACTATGCCTGATTGCTGATCGTGTTTAACTTTTTCTTTTCCTGTTTTTATTTTG
GTATTAAGTCGTTGCCTTTATTTGTAAAGCTGTTATAAATATATATTATATAAATATATTAAAAAGGAAAATGTT
TCAGATGTTTATTTGTATAATTACTTGATTCACACAGTGAGAAAAAATGAATGTATTCCTGTTTTTGAAGAGAAG
AATAATTTTTTTTTCTCTAGGGAGAGGTACAGTGTTTATATTTTGGAGCCTTCCTGAAGGTGTAAAATTGTAAAT
ATTTTTATCTATGAGTAAATGTTAAGTAGTTGTTTTAAAATACTTAATAAAATAATTCTTTTCCTGTGGAAG

FIGURE 82

MERIPSAQPPPACLPKAPGLEHGDLPGMYPAHMYQVYKSRRGIKRSEDSKETYKLPHRLIEKKRRDRINECIAQL
KDLLPEHLKLTTLGHLEKAVVLELTLKHVKALTNLIDQQQQKIIALQSGLQAGELSGRNVETGQEMFCSGFQTCA
REVLQYLAKHENTRDLKSSQLVTHLHRVVSELLQGGTSRKPSDPAPKVMDFKEKPSSPAKGSEGPGKNCVPVIQR
TFAHSSGEQSGSDTDTDSGYGGESEKGDLRSEQPCFKSDHGRRFTMGERIGAIKQESEEPPTKKNRMQLSDDEGH
FTSSDLISSPFLGPHPHQPPFCLPFYLIPPSATAYLPMLEKCWYPTSVPVLYPGLNASAAALSSFMNPDKISAPL
LMPQRLPSPLPAHPSVDSSVLLQALKPIPPLNLETKD

FIGURE 83A

GTCCTTTCACGCGTGTCTTCGTGTTGGTGCGCTTTTCACTGGTCATAAAGTGCTGCTCACGGCCGTGAACTGCTA
CAGCGTGAAGGCCGCCACCCGGGTCCAGGATGCTTTTGCCGCCGCCAAGCTCCTGGCCCTGGCCCTGATCATCCT
GCTGGGCTTCGTCCAGATCGGGAAGGGTGATGTGTCCAATCTAGATCCCAAGTTCTCATTTGAAGGCACCAAACT
GGATGTGGGGAACATTGTGCTGGCATTATACAGCGGCCTCTTTGCCTATGGAGGATGGAATTACTTGAATTTCGT
CACAGAGGAA**ATG**ATCAACCCCTACAGAAACCTGCCCCTGGCCATCATCATCTCCCTGCCCATCGTGACGCTGGT
GTACGTGCTGACCAACCTGGCCTACTTCACCACCCTGTCCACCGAGCAGATGCTGTCGTCCGAGGCCGTGGCCGT
GGACTTCGGGAACTATCACCTGGGCGTCATGTCCTGGATCATCCCCGTCTTCGTGGGCCTGTCCTGCTTTGGCTC
CGTCAATGGGTCCCTGTTCACATCCTCCAGGCTCTTCTTCGTGGGGTCCCGGGAAGGCCACCTGCCCTCCATCCT
CTCCATGATCCACCCACAGCTCCTCACCCCCGTGCCGTCCCTCGTGTTCACGTGTGTGATGACGCTGCTCTACGC
CTTCTCCAAGGACATCTTCTCCGTCATCAACTTCTTCAGCTTCTTCAACTGGCTCTGCGTGGCCCTGGCCATCAT
CGGCATGATCTGGCTGCGCCACAGAAAGCCTGAGCTTGAGCGGCCCATCAAGGTGAACCTGGCCCTGCCTGTGTT
CTTCATCCTGGCCTGCCTCTTCCTGATCGCCGTCTCCTTCTGGAAGACACCCGTGGAGTGTGGCATCGGCTTCAC
CATCATCCTCAGCGGGCTGCCCGTCTACTTCTTCGGGGTCTGGTGGAAAAACAAGCCCAAGTGGCTCCTCCAGGG
CATCTTCTCCACGACCGTCCTGTGTCAGAAGCTCATGCAGGTGGTCCCCCAGGAGACA**TAG**CCAGGAGGCCGAGT
GGCTGCCGGAGGAGCATGCGCAGAGGCCAGTTAAAGTAGATCACCTCCTCGAACCCACTCCGGTTCCCCGCAACC
CACAGCTCAGCTGCCCATCCCAGTCCTCGCCGTCCCTCCCAGGTCGGGCAGTGGAGGCTGCTGTGAAAACTCTGG
TACGAATCTCATCCCTCAACTGAGGGCCAGGGACCCAGGTGTGCCTGTGCTCCTGCCCAGGAGCAGCTTTTGGTC
TCCTTGGGCCCTTTTTCCCTTCCCTCCTTTGTTTACTTATATATATATTTTTTTTTAAACTTAAATTTTGGGTCAA
CTTGACACCACTAAGATGATTTTTTAAGGAGCTGGGGGAAGGCAGGAGCCTTCCTTTCTCCTGCCCCAAGGGCCC
AGACCCTGGGCAAACAGAGCTACTGAGACTTGGAACCTCATTGCTACCACAGACTTGCACTGAAGCCAGACAGCT
GCCCAGACACATGGGCTTGTGACATTCGTGAAAACCAACCCTGTGGGCTTATGTCTCTGCCTTAGGGTTTGCAGA
GTGGAAACTCAGCCGTAGGGTGGCACTGGGAGGGGGTGGGGGATCTGGGCAAGGTGGGTGATTCCTCCCAGGAGG
TGCTTGAGGCCCCGATGGACTCCTGACCATAATCCTAGCCCCGAGACACCATCCTGAGCCAGGGAACAGCCCCAG
GGTTGGGGGGTGCCGGCATCTCCCCTAGCTCACCAGGCCTGGCCTCTGGGCAGTGTGGCCTCTTGGCTATTTCTG
TTCCAGTTTTGGAGGCTGAGTTCTGGTTCATGCAGACAAAGCCCTGTCCTTCAGTCTTCTAGAAACAGAGACAAG
AAAGGCAGACACACCGCGGCCAGGCACCCATGTGGGCGCCCACCCTGGGCTCCACACAGCAGTGTCCCCTGCCCC
AGAGGTCGCAGCTACCCTCAGCCTCCAATGCATTGGCCTCTGTACCGCCCGGCAGCCCCTTCTGGCCGGTGCTGG
GTTCCCACTCCCGGCCTAGGCACCTCCCCGCTCTCCCTGTCACGCTCATGTCCTGTCCTGGTCCTGATGCCCGTT
GTCTAGGAGACAGAGCCAAGCACTGCTCACGTCTCTGCCGCCTGCGTTTGGAGGCCCCTGGGCTCTCACCCAGTC
CCCACCCGCCTGCAGAGAGGGAACTAGGGCACCCCTTGTTTCTGTTGTTCCCGTGAATTTTTTTCGCTATGGGAG
GCAGCCGAGGCCTGGCCAATGCGGCCCACTTTCCTGAGCTGTCGCTGCCTCCATGGCAGCAGCCAAGGACCCCCA
GAACAAGAAGACCCCCCGCAGGATCCCTCCTGAGCTCGGGGGGCTCTGCCTTCTCAGGCCCCGGGCTTCCCTTC
TCCCCAGCCAGAGGTGGAGCCAAGTGGTCCAGCGTCACTCCAGTGCTCAGCTGTGGCTGGAGGAGCTGGCCTGTG
GCACAGCCCTGAGTGTCCCAAGCCGGGAGCCAACGAAGCCGGACACGGCTTCACTGACCAGCGGCTGCTCAAGCC
GCAAGCTCTCAGCAAGTGCCCAGTGGAGCCTGCCGCCCCCACCTGGGCACCGGGACCCCCTCACCATCCAGTGGG
CCCGGAGAAACCTGATGAACAGTTTGGGGACTCAGGACCAGATGTCCGTCTCTCTTGCTTGAGGAATGAAGACCT
TTATTCACCCCTGCCCCGTTGCTTCCCGCTGCACATGGACAGACTTCACAGCGTCTGCTCATAGGACCTGCATCC
TTCCTGGGGACGAATTCCACTCGTCCAAGGGACAGCCCACGGTCTGGAGGCCGAGGACCACCAGCAGGCAGGTGG
ACTGACTGTGTTGGGCAAGACCTCTTCCCTCTGGGCCTGTTCTCTTGGCTGCAAATAAGGACAGCAGCTGGTGCC
CCACCTGCCTGGTGCATTGCTGTGTGAATCCAGGAGGCAGTGGACATCGTAGGCAGCCACGGCCCCAGGTCCAGG
AGAAGTGCTCCCTGGAGGCACGGACCACTGCTTCCCACTGGGGCCGGCGGGGCCCACGCACGACGTCAGCCTCTT
ACCTTCCCGCCTCGGCTAGGGGTCCTCGGGATGCCGTTCTGTTCCAACCTCCTGTTCTGGGAGGTGGACATGCCT
CAAGGATACAGGGAGCCGGCGGCCTCTCGACGGCACGCACTTCCTGTTGGCTGCTGCGGCTGTGGGCGAGCATGG
GGGCTGCCAGCGTCTGTTGTGGAAAGTAGCTGCTAGTGAAATGGCTGGGGCCGCTGGGGTCCGTCTTCACACTGC
GCAGGTCTCTTCTGGGCGTCTGAGCTGGGGTGGGAGCTCCTCCGCAGAAGGTTGGTGGGGGGTCCAGTCTGTGAT
CCTTGGTGCTGTGTGCCCCACTCCAGCCTGGGGACCCCACTTCAGAAGGTAGGGGCCGTGTCCCGCGGTGCTGAC
TGAGGCCTGCTTCCCCCTCCCCCTCCTGCTGTGCTGGAATTCCACAGGGACCAGGGCCACCGCAGGGGACTGTCT
CAGAAGACTTGATTTTTCCGTCCCTTTTTCTCCACACTCCACTGACAAACGTCCCCAGCGGTTTCCACTTGTGGG

FIGURE 83B

CTTCAGGTGTTTTCAAGCACAACCCACCACAACAAGCAAGTGCATTTTCAGTCGTTGTGCTTTTTTGTTTTGTGC
TAACGTCTTACTAATTTAAAGATGCTGTCGGCACCATGTTTATTTATTTCCAGTGGTCATGCTCAGCCTTGCTGC
TCTGCGTGGCGCAGGTGCCATGCCTGCTCCCTGTCTGTGTCCCAGCCACGCAGGGCCATCCACTGTGACGTCGGC
CGACCAGGCTGGACACCCTCTGCCGAGTAATGACGTGTGTGGCTGGGACCTTCTTTATTCTGTGTTAATGGCTAA
CCTGTTACACTGGGCTGGGTTGGGTAGGGTGTTCTGGCTTTTTTGTGGGGTTTTTATTTTTAAAGAAACACTCAA
TCATCCTAG

FIGURE 84

MINPYRNLPLAIIISLPIVTLVYVLTNLAYFTTLSTEQMLSSEAVAVDFGNYHLGVMSWIIPVFVGLSCFGSVNG
SLFTSSRLFFVGSREGHLPSILSMIHPQLLTPVPSLVFTCVMTLLYAFSKDIFSVINFFSFFNWLCVALAIIGMI
WLRHRKPELERPIKVNLALPVFFILACLFLIAVSFWKTPVECGIGFTIILSGLPVYFFGVWWKNKPKWLLQGIFS
TTVLCQKLMQVVPQET

FIGURE 85

AGGTCTCAGCCGGTCGTCGCGACGTTCGCCCGCTCGCTCTGAGGCTCCTGAAGCCGAAACTAGCTAGACTTTCCT
CCTTCCCGCCTGCCTGTAGCGGCGTTGTTGCCACTCCGCCACC**ATG**TTCGAGGCGCGCCTGGTCCAGGGCTCCAT
CCTCAAGAAGGTGTTGGAGGCACTCAAGGACCTCATCAACGAGGCCTGCTGGGATATTAGCTCCAGCGGTGTAAA
CCTGCAGAGCATGGACTCGTCCCACGTCTCTTTGGTGCAGCTCACCCTGCGGTCTGAGGGCTTCGACACCTACCG
CTGCGACCGCAACCTGGCCATGGGCGTGAACCTCACCAGTATGTCCAAAATACTAAAATGCGCCGGCAATGAAGA
TATCATTACACTAAGGGCCGAAGATAACGCGGATACCTTGGCGCTAGTATTTGAAGCACCAAACCAGGAGAAAGT
TTCAGACTATGAAATGAAGTTGATGGATTTAGATGTTGAACAACTTGGAATTCCAGAACAGGAGTACAGCTGTGT
AGTAAAGATGCCTTCTGGTGAATTTGCACGTATATGCCGAGATCTCAGCCATATTGGAGATGCTGTTGTAATTTC
CTGTGCAAAAGACGGAGTGAAATTTTCTGCAAGTGGAGAACTTGGAAATGGAAACATTAAATTGTCACAGACAAG
TAATGTCGATAAAGAGGAGGAAGCTGTTACCATAGAGATGAATGAACCAGTTCAACTAACTTTTGCACTGAGGTA
CCTGAACTTCTTTACAAAAGCCACTCCACTCTCTTCAACGGTGACACTCAGTATGTCTGCAGATGTACCCCTTGT
TGTAGAGTATAAAATTGCGGATATGGGACACTTAAAATACTACTTGGCTCCCAAGATCGAGGATGAAGAAGGATC
T**TAG**GCATTCTTAAAATTCAAGAAAATAAAACTAAGCTCTTTGAGAACTGCTTCTAAGATGCCAGCATATACTGA
AGTCTTTTCTGTCACCAAATTTGTACCTCTAAGTACATATGTAGATATTGTTTCTGTAAATAACCTATTTTTTT
TCTCTATTCTCTCCAATTTGTTTAAAGAATAAAGTCCAAAGTCTGATCTGGTCTAGTTAACCTAGAAGTATTTTT
GTCTCTTAGAAATACTTGTGATTTTTATAATACAAAAGGGTCTTGACTCTAAATGCAGTTTTAAGAAGTGTTTTT
GAATTTAAATAAAGTTACTTGAATTTCAAAC

FIGURE 86

MFEARLVQGSILKKVLEALKDLINEACWDISSSGVNLQSMDSSHVSLVQLTLRSEGFDTYRCDRNLAMGVNLTSM
SKILKCAGNEDIITLRAEDNADTLALVFEAPNQEKVSDYEMKLMDLDVEQLGIPEQEYSCVVKMPSGEFARICRD
LSHIGDAVVISCAKDGVKFSASGELGNGNIKLSQTSNVDKEEEAVTIEMNEPVQLTFALRYLNFFTKATPLSSTV
TLSMSADVPLVVEYKIADMGHLKYYLAPKIEDEEGS

FIGURE 87

TAGCTAGGCAGGAAGTCGGCGCGGGCGGCGCGGACAGTATCTGTGGGTACCCGGAGCACGGAGATCTCGCCGGCT
TTACGTTCACCTCGGTGTCTGCAGCACCCTCCGCTTCCTCTCCTAGGCGACGAGACCCAGTGGCTAGAAGTTCAC
CATGTCTATTCTCAAGATCCATGCCAGGGAGATCTTTGACTCTCGCGGGAATCCCACTGTTGAGGTTGATCTCTT
CACCTCAAAAGGTCTCTTCAGAGCTGCTGTGCCCAGTGGTGCTTCAACTGGTATCTATGAGGCCCTAGAGCTCCG
GGACAATGATAAGACTCGCTATATGGGGAAGGGTGTCTCAAAGGCTGTTGAGCACATCAATAAAACTATTGCGCC
TGCCCTGGTTAGCAAGAAACTGAACGTCACAGAACAAGAGAAGATTGACAAACTGATGATCGAGATGGATGGAAC
AGAAAATAAATCTAAGTTTGGTGCGAACGCCATTCTGGGGGTGTCCCTTGCCGTCTGCAAAGCTGGTGCCGTTGA
GAAGGGGGTCCCCCTGTACCGCCACATCGCTGACTTGGCTGGCAACTCTGAAGTCATCCTGCCAGTCCCGGCGTT
CAATGTCATCAATGGCGGTTCTCATGCTGGCAACAAGCTGGCCATGCAGGAGTTCATGATCCTCCCAGTCGGTGC
AGCAAACTTCAGGGAAGCCATGCGCATTGGAGCAGAGGTTTACCACAACCTGAAGAATGTCATCAAGGAGAAATA
TGGGAAAGATGCCACCAATGTGGGGGATGAAGGCGGGTTTGCTCCCAACATCCTGGAGAATAAAGAAGGCCTGGA
GCTGCTGAAGACTGCTATTGGGAAAGCTGGCTACACTGATAAGGTGGTCATCGGCATGGACGTAGCGGCCTCCGA
GTTCTTCAGGTCTGGGAAGTATGACCTGGACTTCAAGTCTCCCGATGACCCCAGCAGGTACATCTCGCCTGACCA
GCTGGCTGACCTGTACAAGTCCTTCATCAAGGACTACCCAGTGGTGTCTATCGAAGATCCCTTTGACCAGGATGA
CTGGGGAGCTTGGCAGAAGTTCACAGCCAGTGCAGGAATCCAGGTAGTGGGGGATGATCTCACAGTGACCAACCC
AAAGAGGATCGCCAAGGCCGTGAACGAGAAGTCCTGCAACTGCCTCCTGCTCAAAGTCAACCAGATTGGCTCCGT
GACCGAGTCTCTTCAGGCGTGCAAGCTGGCCCAGGCCAATGGTTGGGGCGTCATGGTGTCTCATCGTTCGGGGGA
GACTGAAGATACCTTCATCGCTGACCTGGTTGTGGGGCTGTGCACTGGGCAGATCAAGACTGGTGCCCCTTGCCG
ATCTGAGCGCTTGGCCAAGTACAACCAGCTCCTCAGAATTGAAGAGGAGCTGGGCAGCAAGGCTAAGTTTGCCGG
CAGGAACTTCAGAAACCCCTTGGCCAAG**TAA**GCTGTGGGCAGGCAAGCCCTTCGGTCACCTGTTGGCTACACAGA
CCCCTCCCCTCGTGTCAGCTCAGGCAGCTCGAGGCCCCCGACCAACACTTGCAGGGGTCCCTGCTAGTTAGCGCC
CCACCGCCGTGGAGTTCGTACCGCTTCCTTAGAACTTCTACAGAAGCCAAGCTCCCTGGAGCCCTGTTGGCAGCT
CTAGCTTTGCAGTCGTGTAATTGGCCCAAGTCATTGTTTTTCTCGCCTCACTTTCCACCAAGTGTCTAGAGTCAT
GTGAGCCTCGTGTCATCTCCGGGGTGGCCACAGGCTAGATCCCCGGTGGTTTTGTGCTCAAAATAAAAAGCCTCA
GTGACCCATGAG

FIGURE 88

MSILKIHAREIFDSRGNPTVEVDLFTSKGLFRAAVPSGASTGIYEALELRDNDKTRYMGKGVSKAVEHINKTIAP
ALVSKKLNVTEQEKIDKLMIEMDGTENKSKFGANAILGVSLAVCKAGAVEKGVPLYRHIADLAGNSEVILPVPAF
NVINGGSHAGNKLAMQEFMILPVGAANFREAMRIGAEVYHNLKNVIKEKYGKDATNVGDEGGFAPNILENKEGLE
LLKTAIGKAGYTDKVVIGMDVAASEFFRSGKYDLDFKSPDDPSRYISPDQLADLYKSFIKDYPVVSIEDPFDQDD
WGAWQKFTASAGIQVVGDDLTVTNPKRIAKAVNEKSCNCLLLKVNQIGSVTESLQACKLAQANGWGVMVSHRSGE
TEDTFIADLVVGLCTGQIKTGAPCRSERLAKYNQLLRIEEELGSKAKFAGRNFRNPLAK

FIGURE 89

GGCTGAGGCAGTGGCTCCTTGCACAGCAGCTGCACGCGCCGTGGCTCCGGATCTTCTTCGTCTTTGCAGCGTAGC
CCGAGTCGGTCAGCGCCAGAGGACCTCAGCAGCC**ATG**TCGAAGCCCCATAGTGAAGCCGGGACTGCCTTCATTCA
GACCCAGCAGCTGCACGCAGCCATGGCTGACACATTCCTGGAGCACATGTGCCGCCTGGACATTGATTCACCACC
CATCACAGCCCGGAACACTGGCATCATCTGTACCATTGGCCCAGCTTCCCGATCAGTGGAGACGTTGAAGGAGAT
GATTAAGTCTGGAATGAATGTGGCTCGTCTGAACTTCTCTCATGGAACTCATGAGTACCATGCGGAGACCATCAA
GAATGTGCGCACAGCCACGGAAAGCTTTGCTTCTGACCCCATCCTCTACCGGCCCGTTGCTGTGGCTCTAGACAC
TAAAGGACCTGAGATCCGAACTGGGCTCATCAAGGGCAGCGGCACTGCAGAGGTGGAGCTGAAGAAGGGAGCCAC
TCTCAAAATCACGCTGGATAACGCCTACATGGAAAAGTGTGACGAGAACATCCTGTGGCTGGACTACAAGAACAT
CTGCAAGGTGGTGGAAGTGGGCAGCAAGATCTACGTGGATGATGGGCTTATTTCTCTCCAGGTGAAGCAGAAAGG
TGCCGACTTCCTGGTGACGGAGGTGGAAAATGGTGGCTCCTTGGGCAGCAAGAAGGGTGTGAACCTTCCTGGGGC
TGCTGTGGACTTGCCTGCTGTGTCGGAGAAGGACATCCAGGATCTGAAGTTTGGGGTCGAGCAGGATGTTGATAT
GGTGTTTGCGTCATTCATCCGCAAGGCATCTGATGTCCATGAAGTTAGGAAGGTCCTGGGAGAGAAGGGAAAGAA
CATCAAGATTATCAGCAAAATCGAGAATCATGAGGGGGTTCGGAGGTTTGATGAAATCCTGGAGGCCAGTGATGG
GATCATGGTGGCTCGTGGTGATCTAGGCATTGAGATTCCTGCAGAGAAGGTCTTCCTTGCTCAGAAGATGATGAT
TGGACGGTGCAACCGAGCTGGGAAGCCTGTCATCTGTGCTACTCAGATGCTGGAGAGCATGATCAAGAAGCCCCG
CCCCACTCGGGCTGAAGGCAGTGATGTGGCCAATGCAGTCCTGGATGGAGCCGACTGCATCATGCTGTCTGGAGA
AACAGCCAAAGGGGACTATCCTCTGGAGGCTGTGCGCATGCAGAACCTGATTGCCCGTGAGGCAGAGGCTGCCAT
CTACCACTTGCAATTATTTGAGGAACTCCGCCGCCTGGCGCCCATTACCAGCGACCCCACAGAAGCCACCGCCGT
GGGTGCCGTGGAGGCCTCCTTCAAGTGCTGCAGTGGGGCCATAATCGTCCTCACCAAGTCTGGCAGGTCTGCTCA
CCAGGTGGCCAGATACCGCCCACGTGCCCCCATCATTGCTGTGACCCGGAATCCCCAGACAGCTCGTCAGGCCCA
CCTGTACCGTGGCATCTTCCCTGTGCTGTGCAAGGACCCAGTCCAGGAGGCCTGGGCTGAGGACGTGGACCTCCG
GGTGAACTTTGCCATGAATGTTGGCAAGGCCCGAGGCTTCTTCAAGAAGGGAGATGTGGTCATTGTGCTGACCGG
ATGGCGCCCTGGCTCCGGCTTCACCAACACCATGCGTGTTGTTCCTGTGCCG**TGA**TGGACCCCAGAGCCCCTCCT
CCAGCCCCTGTCCCACCCCCTTCCCCCAGCCCATCCATTAGGCCAGCAACGCTTGTAGAACTCACTCTGGGCTGT
AACGTGGCACTGGTAGGTTGGGACACCAGGGAAGAAGATCAACGCCTCACTGAAACATGGCTGTGTTTGCAGCCT
GCTCTAGTGGGACAGCCCAGAGCCTGGCTGCCCCATCATGTGGCCCCACCCAATCAAGGGAAGAAGGAGGAATGC
TGGACTGGAGGCCCCTGGAGCCAGATGGCAAGAGGGTGACAGCTTCCTTTCCTGTGTGTACTCTGTCCAGTTCCT
TTAGAAAAAATGGATGCCCAGAGGACTCCCAACCCTGGCTTGGGGTCAAGAAACAGCCAGCAAGAGTTAGGGGCC
TTAGGGCACTGGGCTGTTGTTCCATTGAAGCCGACTCTGGCCCTGGCCCTTACTTGCTTCTCTAGCTCTCTAGGC
CTCTCCAGTTTGCACCTGTCCCCACCCTCCACTCAGCTGTCCTGCAGCAAACACTCCACCCTCCACCTTCCATTT
TCCCCCACTACTGCAGCACCTCCAGGCCTGTTGCCGC

FIGURE 90

MSKPHSEAGTAFIQTQQLHAAMADTFLEHMCRLDIDSPPITARNTGIICTIGPASRSVETLKEMIKSGMNVARLN
FSHGTHEYHAETIKNVRTATESFASDPILYRPVAVALDTKGPEIRTGLIKGSGTAEVELKKGATLKITLDNAYME
KCDENILWLDYKNICKVVEVGSKIYVDDGLISLQVKQKGADFLVTEVENGGSLGSKKGVNLPGAAVDLPAVSEKD
IQDLKFGVEQDVDMVFASFIRKASDVHEVRKVLGEKGKNIKIISKIENHEGVRRFDEILEASDGIMVARGDLGIE
IPAEKVFLAQKMMIGRCNRAGKPVICATQMLESMIKKPRPTRAEGSDVANAVLDGADCIMLSGETAKGDYPLEAV
RMQNLIAREAEAAIYHLQLFEELRRLAPITSDPTEATAVGAVEASFKCCSGAIIVLTKSGRSAHQVARYRPRAPI
IAVTRNPQTARQAHLYRGIFPVLCKDPVQEAWAEDVDLRVNFAMNVGKARGFFKKGDVVIVLTGWRPGSGFTNTM
RVVPVP

FIGURE 91

CCGAGGCCAAGTCCCGGGCGCTAGCCCACCTCCCACCCGCCTCTTGGCTCCTCTCCTCTAGGCCGTCGCTTTCGG
GTTCTCTCATCGCTTCGTCGTTCGCCAATGTTTGAGGAGAAGGCCAGCAGTCCTTCAGGGAAG**ATG**GGAGGCGAG
GAGAAGCCGATTGGTGCTGGTGAAGAGAAGCAAAAGGAAGGAGGCAAAAAGAAGAACAAAGAAGGATCTGGAGAT
GGAGGTCGAGCTGAGTTGAATCCTTGGCCTGAATATATTTACACACGTCTTGAGATGTATAATATACTAAAAGCA
GAACATGATTCCATTCTGGCAGAAAAGGCAGAAAAAGATAGCAAGCCAATTAAAGTCACTTTGCCTGATGGTAAA
CAGGTTGATGCGGAATCTTGGAAAACTACACCATATCAAATTGCCTGTGGAATTAGTCAAGGCCTGGCCGACAAC
ACCGTTATTGCTAAAGTAAATAATGTTGTGTGGGACCTGGACCGCCCTCTGGAAGAAGATTGTACCTTGGAGCTT
CTCAAGTTTGAGGATGAGGAAGCTCAGGCAGTGTATTGGCACTCTAGTGCTCACATAATGGGTGAAGGCATGGAA
AGAGTCTATGGTGGATGTTTATGCTACGGTCCGCCAATAGAAAATGGATTCTATTATGACATGTACCTCGAAGAA
GGGGGTGTGTCTAGCAATGATTTCTCTTCTCTGGAGGCTTTGTGTAAGAAAATCATTAAAGAAAAACAAGCTTTT
GAAAGACTGGAAGTTAAGAAAGAAACTTTACTGGCAATGTTTAAGTACAACAAGTTCAAATGCCGGATATTGAAT
GAAAAGGTGAATACTCCAACTACCACAGTCTATAGATGTGGCCCTTTGATAGATCTCTGCCGGGGTCCTCATGTT
AGACACACGGGCAAAATTAAGGCTTTAAAAATACACAAAAATTCCTCCACGTACTGGGAAGGCAAAGCAGATATG
GAGACTCTCCAGAGAATTTATGGCATTTCATTCCCAGATCCTAAAATGTTGAAAGAGTGGGAGAAGTTCCAAGAG
GAAGCTAAAAACCGAGATCATAGGAAAATTGGCAGGGACCAAGAACTATATTTCTTTCATGAACTCAGCCCTGGA
AGTTGCTTTTTTCTGCCAAAAGGAGTCTATATTTATAATGCACTTATTGAATTCATTAGGAGCGAATATAGGAAA
AGAGGATTCCAGGAGGTAGTCACCCCAAACATCTTCAACAGCCGACTCTGGATGACCTCGGGCCACTGGCAGCAC
TACAGCGAGAACATGTTCTCCTTTGAGGTGGAGAAGGAGCTGTTTGCCCTGAAACCCATGAACTGCCCAGGACAC
TCCCTTATGTTTGATCATCGGCCAAGGTCCTGGCGAGAACTGCCTCTGCGGCTAGCTGATTTTGGGGGTCTTCAT
AGGAACGAGCTGTCTGGAGCACTCACAGGACTCACCCGGGTACGAAGATTCCAACAGGATGATGCTCACATATTC
TGTGCCATGGAGCAGATTGAAGATGAAATAAAAGGTTGTTTGGATTTTCTACGTACGGTATATAGCGTATTTGGA
TTTTCTTTTAAACTAAACCTTTCTACTCGCCCGGAAAAATTCCTTGGAGATATCGAAGTATGGGATCAAGCTGAG
AAACAACTTGAAAACAGTCTGAATGAATTTGGTGAAAAGTGGGAGTTAAACTCTGGAGATGGAGCTTTCTATGGC
CCAAAGATTGACATACAGATTAAAGATGCGATTGGGCGGTACCACCAGTGTGCAACCATCCAGCTGGATTTCCAG
TTGCCCATCAGATTTAATCTTACTTATGTAAGCCATGATGGTGAGGATAAGAAAAGGCCAGTGATTGTTCATCGA
GCCATCTTGGGATCAGTGGAAAGAATGATTGCTATCCTCACAGAAACTATGGGGGCAAATTGGCCCCCTTTTGG
CTGTCCCCTCGCCAGGTAATGGTAGTTCCAGTGGGACCAACCTGTGATGAATATGCCCAAAACGTACGACAACAA
TTCCACGATGCCAAATTCATGGCAGACATTGATCTGGATCCAGGCTGTACATTGAATAAAAAGATTCGAAATGCA
CAGTTAGCACAGTATAACTTCATTTTAGTTGTTGGTGAAAAAGAGAAATCACTGGCACTGTTAATATCCGCACA
AGAGACAATAAGGTCCACGGGGAACGCACCATTTCTGAAACTATCGAGCGGCTACAGCAGCTCAAAGAGTTCCGC
AGCAAACAGGCAGAAGAAGAATTT**TAA**TGAAAAAATTACCCAGATTGGCTCCATGGAAAAGGAGGAACAGCGTTT
CCGTAAAATTGACTTTGTACTCGAAAACGTCAATTTATATTGAACTTGGAGGAGGAGTTTGGCAAAGTCTGAAAT
AGGTCAACCTGCAGGCGTAACTATTTTTGACCTAGTCAGTTTTTAAACAATGTGCATTTGAAGGAGTTAATTAAA
AGAGAGCCAATAAAATGATTTTACTCATTCAGTATCTGAGTACTGGAAGTGAAACATGAGGAATGCTTTAGTGTA
ATGTGGGAGAACTTTTTTGTAAATTTAATGCAATTGAAAAGTTTTCAAATTCAATTAAGATAACTAGAATTGGT
TATGGTGTAACCCGAATTC

FIGURE 92

MGGEEKPIGAGEEKQKEGGKKKNKEGSGDGGRAELNPWPEYIYTRLEMYNILKAEHDSILAEKAEKDSKPIKVTL
PDGKQVDAESWKTTPYQIACGISQGLADNTVIAKVNNVVWDLDRPLEEDCTLELLKFEDEEAQAVYWHSSAHIMG
EGMERVYGGCLCYGPPIENGFYYDMYLEEGGVSSNDFSSLEALCKKIIKEKQAFERLEVKKETLLAMFKYNKFKC
RILNEKVNTPTTTVYRCGPLIDLCRGPHVRHTGKIKALKIHKNSSTYWEGKADMETLQRIYGISFPDPKMLKEWE
KFQEEAKNRDHRKIGRDQELYFFHELSPGSCFFLPKGVYIYNALIEFIRSEYRKRGFQEVVTPNIFNSRLWMTSG
HWQHYSENMFSFEVEKELFALKPMNCPGHSLMFDHRPRSWRELPLRLADFGGLHRNELSGALTGLTRVRRFQQDD
AHIFCAMEQIEDEIKGCLDFLRTVYSVFGFSFKLNLSTRPEKFLGDIEVWDQAEKQLENSLNEFGEKWELNSGDG
AFYGPKIDIQIKDAIGRYHQCATIQLDFQLPIRFNLTYVSHDGEDKKRPVIVHRAILGSVERMIAILTENYGGKL
APFWLSPRQVMVVPVGPTCDEYAQNVRQQFHDAKFMADIDLDPGCTLNKKIRNAQLAQYNFILVVGEKEKITGTV
NIRTRDNKVHGERTISETIERLQQLKEFRSKQAEEEF

FIGURE 93

GGCACCGCGCGGGACGGAGCTTGGCTGTTGGTCGGTGGGTTCCCGTGCGGCGGCGGCCAAGGAGGAGGAGACACA
GTTGGAGCAGCTCCGTGGGCTGACTGGGGCGAGGCCTCAGCAGCGCGAGCTTGAGTGCGGCCGAGCCTGCGGCGC
CTTCCCCTGCGGGTGGGGACGAGCGGGCCCCGCGGCGTCATCGGCGGCGAGGAGCCGCCGCGCCTCGGCCTAGC**A**
TGTCGGAAGCGGGCGAGGAGCAGCCCATGGAGACGACGGGCGCCACCGAGAACGGACATGAGGCCGTCCCCGAAG
CGAGTCGCGGCCGGGGCTGGACGGGCGCCGCGGCGGGGCTGGAGGCGCGACCGCCGCGCCCCCGAGCGGGAATCA
GAACGGCGCCGAGGGACCAGATCAACGCCAGCAAGAACGAGGAGGACGCGGGAAAAATGTTCGTTGGTGGCCTGA
GCTGGGATACTAGCAAAAAAGATTTAAAAGACTATTTTACTAAATTTGGAGAGGTCGTTGACTGTACAATAAAAA
TGGATCCCAACACTGGACGGTCAAGAGGGTTTGGGTTTATCCTGTTCAAAGATGCAGCCAGTGTGGAGAAGGTCC
TAGACCAGAAGGAGCACAGGCTGGATGGCCGTGTCATTGACCCTAAAAAGGCCATGGCTATGAAGAAGGACCCGG
TCAAGAAAATCTTCGTTGGGGGTCTGAATCCTGAAAGTCCCACTGAGGAAAAGATCAGGGAGTACTTTGGCGAGT
TTGGGGAGATTGAGGCCATTGAATTGCCAATGGATCCAAAGTTGAACAAAAGACGAGGTTTTGTGTTTATCACCT
TTAAAGAAGAAGAACCCGTGAAGAAGGTTCTGGAGAAAAAGTTCCATACTGTCAGTGGAAGCAAGTGTGAGATCA
AGGTGGCCCAGCCCAAAGAAGTCTATCAGCAGCAGCAGTATGGCTCTGGGGGCCGTGGAAACCGCAACCGAGGGA
ACCGAGGCAGCGGAGGTGGTGGTGGAGGTGGAGGTCAGAGTCAGAGTTGGAATCAGGGCTACGGCAACTACTGGA
ACCAGGGCTACGGCTACCAGCAGGGCTACGGGCCTGGCTATGGCGGCTACGACTACTCGCCCTATGGCTATTACG
GCTACGGCCCCGGCTACGACTACAGTCAGGGTAGTACAAACTACGGCAAGAGCCAGCGACGTGGTGGCCATCAGA
ATAACTACAAGCCATAC**TGA**GGCGGCCAAGGGAGCGACCAACTGATCGCACACATGCTTTGTTTGGATATGGAGT
GAACACAATTATGTACCAAATTTAACTTGGCAAACTTTCTATTGCCTGTCCCATGTGCATCTTATTTAAAATTTC
CCCCATGGAAATCACTCTCCTGTTGACTATTTCCAGAGCTCTAGGTGTTTAGGCAGCGTGTGGTGTCTGAGAGGC
CATAGCGCCATCATGGGCTGATTTTTATTACCAGGTCCCCCAGAAGCAGGTGAGAGGCTCTGCTTCCTGCTGCCG
CTCTGCAGCCTGGACCTGTGGACCCTGGTTGTAAAGAGTAAATTGTATCTTAGGAAACCAGTGTCACCTTTTTTT
CACCTTTTAATTTTATATTATTTGCGTCATACATTTCCTGTAACGGAAGTGTTAATTTTACTGTACTTTTTGGTA
CCCCTTTTGGGAATCTAATGTATTGTAAGGTATTTTACACGTGTCCTGATTTTGCCACAACCTGGATATTGAAGC
TATCCAAGCTTTTGAAATAAAATTTAAAAACCCCAAGCCTGGGTGAGTGTGGGAAAAAAAAAAAAAAAA

FIGURE 94

MSEAGEEQPMETTGATENGHEAVPEASRGRGWTGAAAGLEARPPRPRAGIRTAPRDQINASKNEEDAGKMFVGGL
SWDTSKKDLKDYFTKFGEVVDCTIKMDPNTGRSRGFGFILFKDAASVEKVLDQKEHRLDGRVIDPKKAMAMKKDP
VKKIFVGGLNPESPTEEKIREYFGEFGEIEAIELPMDPKLNKRRGFVFITFKEEEPVKKVLEKKFHTVSGSKCEI
KVAQPKEVYQQQQYGSGGRGNRNRGNRGSGGGGGGGGQSQSWNQGYGNYWNQGYGYQQGYGPGYGGYDYSPYGYY
GYGPGYDYSQGSTNYGKSQRRGGHQNNYKPY

FIGURE 95

GCCGGGGAAGTCATGCTCGCTTCACGGAGGCAATAGCTAGCCGGTGTCTGTGGGAGGTTATGTTTATTTGAGACT
TCTCCATCGGGATCGCCTGGTGTCACCAAGTGTCCACTGGTACTGAGGTTTGCTGCCTGCCTTCTTGCC**ATG**TCT
AACGAAGTAGAAACAAGTGCAACCAATGGTCAGCCCGACCAACAGGCCGCACCAAAAGCACCCTCAAAGAAGGAA
AAAAAGAAAGGCCCTGAAAAGACAGATGAATATCTCCTAGCAAGGTTCAAAGGCGATGGCGTAAAATATAAGGCC
AAGCTGATTGGCATTGATGATGTGCCAGATGCAAGAGGGGATAAAATGAGCCAAGACTCTATGATGAAACTAAAG
GGAATGGCGGCACGTGGTCGGTCTCAGGGACAACACAAACAAAGGATCTGGGTCAACATTTCCCTTTCTGGGATA
AAAATAATTGATGAGAAACTGGGGTAATAGAGCATGAACATCCAGTAAATAAGATTTCTTTCATTGCCCGTGAT
GTGACAGACAACCGGGCATTTGGTTACGTGTGTGGAGGAGAAGGCCAGCATCAGTTTTTTACCATAAAAACCGGG
CAACAGGCTGAACCATTAGTTGTTGATCTTAAAGACCTTTTTCAAGTTATCTATAATGTAAAGAAAAAGGAAGAA
GAAAAGAAAAAGATAGAGGAAGCCAGCAAAGCAGTTGAGAATGGGAGTGAGGCCCTAAGGATTCTAGATGACCAA
ACTAACAAACTGAAATCGGGTGTTGACCAGATGGATTTGTTTGGGGACATGTCTACACCTCCTGACCTAAATAGT
CCAACAGAAAGCAAAGATATCCTGTTAGTGGATCTAAACTCTGAAATCGACACCAATCAGAATTCTTTAAGAGAA
AATCCATTCTTAACAAACGGCATCACCTCCTGTTCTCTTCCTCGACCAACGCCTCAGGCATCCTTCTTGCCTGAA
AATGCCTTTTCTGCCAATCTCAACTTCTTTCCCACCCCTAATCCTGATCCTTTCCGTGACGATCCTTTCACACAG
CCAGACCAATCGACACCTTCTTCGTTTGATTCTCTCAAATCTCCAGATCAGAAGAAAGAGAATTCGAGTAGCTCG
TCTACTCCGCTGAGTAATGGGCCCCTGAATGGTGATGTTGACTACTTTGGTCAGCAATTTGACCAGATCTCTAAC
CGGACTGGCAAACAGGAAGCTCAGGCAGGCCCATGGCCCTTTTCAAGTTCGCAAACCCAGCCAGCAGTGAGAACT
CAAAATGGGGTATCTGAAAGAGAACAGAACGGCTTCTCTGTCAAATCCTCCCCGAACCCTTTTGTGGGAAGCCCT
CCCAAAGGACTGTCCATACAGAATGGCGTAAAGCAGGACTTGGAAAGCTCTGTCCAGTCCTCACCACATGACTCC
ATAGCCATTATCCCACCTCCACAAAGTACCAAACCAGGAAGAGGCAGAAGGACTGCTAAGTCTTCAGCCAATGAC
TTGCTTGCATCAGACATCTTTGCTCCTCCCGTCTCAGAACCTTCAGGCCAGGCGTCACCCACAGGACAACCTACA
GCCCTGCAGCCCAACCCTCTGGATCTCTTCAAAACAAGTGCTCCTGCCCCAGTGGGGCCCCTGGTGGGTCTAGGT
GGTGTAACTGTCACACTCCCTCAGGCAGGACCATGGAACACAGCATCTTTGGTCTTCAATCAGTCCCCTTCAATG
GCTCCGGGAGCCATGATGGGTGGTCAACCTTCAGGTTTTAGTCAGCCCGTCATTTTTGGTACAAGTCCAGCTGTT
TCAGGTTGGAACCAGCCTTCACCCTTTGCAGCCTCAACTCCCCCTCCAGTGCCTGTTGTCTGGGGCCCTTCTGCA
TCTGTGGCACCCAATGCTTGGTCAACAACAAGCCCTTTGGGGAATCCTTTTCAGAGCAATATTTTTCCAGCTCCT
GCTGTGTCCACTCAGCCCCCATCCATGCACTCCTCTCTCCTGGTCACTCCTCCTCAGCCACCTCCCAGAGCTGGC
CCTCCCAAGGACATCTCCAGTGATGCCTTCACTGCCTTAGACCCACTTGGGGATAAAGAGATCAAGGATGTGAAA
GAAATGTTTAAGGATTTCCAACTGCGGCAGCCACCTGCTGTGCCCGCGCGGAAGGGAGAGCAGACTTCTTCTGGG
ACTTTGAGTGCCTTTGCCAGTTATTTCAACAGCAAGGTTGGCATTCCTCAGGAGAATGCAGACCATGATGACTTT
GATGCTAATCAACTATTGAACAAGATCAATGAACCACCAAAGCCAGCTCCCAGACAAGTTTCCCTGCCAGTTACC
AAATCTACTGACAATGCATTTGAGAACCCTTTCTTTAAAGATTCTTTTGGTTCATCACAAGCCTCTGTGGCTTCT
TCTCAACCTGTATCTTCTGAGATGTATAGGGATCCATTTGGAAATCCTTTTGCC**TAA**ATTCTGAACTTGGTCTGC
AGACCATCCAGAGGAATAAAAAGGTTGGCCTTAGTAGTCAAAAACAAAGCTGATAGCCAGACACGTTCTGATTTC
TGCCCTTGTTCCAGCTTTGACGTATTATCTGTTGCCTTATTTCTCATTGCCTCTTCTACTTGTAAAATGCTTTTC
ACTTTCTGTCTAGGTTAAAGCTAAACTGAATCTATGGCTTTAAATAAATTAAGATCCTAAACTCTCTAGCTTAAG
TGTAAATGAAGTACAGTAGTTTCCCTACTGAACCCTACCTCTTGTGTCCCTGGAACCTTCTAGAACACCTGCCTT
CTACCCTCTGGTTGGGAGATGCAGCCACCACATCCCTTCATATCATACTGTTTGAATAAATTTTCAAATCCTTA
TTGTTCAGAGTTGTTTGGGGGTTCTGTTTCAGAGCATAAAACCTAAAGGTTATAGTAGAACAAGGCACCTTCTTA
AAAGAAATCTTGCTTCAGACCATCAGTTACAGAGAATTTCCTAAAGTAAAATTGAAGCAACTACAACTTCTCCTT
AGACACTTTGGAATCTAACCACTTAAGGACCTTTTTAAAGAGATAGCTTCTCTTCTTTCTGAAGATCAATTTCTC
CCAAGGCCAAGATTGTCCTTTTCTCCCATTTCTTGCTAGCTATTGCAAATGAGGGAAGAACATTATTCATCTCTC
CTCCCCTTTTTTTTCTGATTCTTTTTTCAGTCAGTTTTGCTCCTGGGTTCAAGTAGTATTACCACCCTTTCACAA
GCAACAGACTCTCACAGGGCAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 96

MSNEVETSATNGQPDQQAAPKAPSKKEKKKGPEKTDEYLLARFKGDGVKYKAKLIGIDDVPDARGDKMSQDSMMK
LKGMAARGRSQGQHKQRIWVNISLSGIKIIDEKTGVIEHEHPVNKISFIARDVTDNRAFGYVCGGEGQHQFFTIK
TGQQAEPLVVDLKDLFQVIYNVKKKEEEKKKIEEASKAVENGSEALRILDDQTNKLKSGVDQMDLFGDMSTPPDL
NSPTESKDILLVDLNSEIDTNQNSLRENPFLTNGITSCSLPRPTPQASFLPENAFSANLNFFPTPNPDPFRDDPF
TQPDQSTPSSFDSLKSPDQKKENSSSSSTPLSNGPLNGDVDYFGQQFDQISNRTGKQEAQAGPWPFSSSQTQPAV
RTQNGVSEREQNGFSVKSSPNPFVGSPPKGLSIQNGVKQDLESSVQSSPHDSIAIIPPPQSTKPGRGRRTAKSSA
NDLLASDIFAPPVSEPSGQASPTGQPTALQPNPLDLFKTSAPAPVGPLVGLGGVTVTLPQAGPWNTASLVFNQSP
SMAPGAMMGGQPSGFSQPVIFGTSPAVSGWNQPSPFAASTPPPVPVVWGPSASVAPNAWSTTSPLGNPFQSNIFP
APAVSTQPPSMHSSLLVTPPQPPPRAGPPKDISSDAFTALDPLGDKEIKDVKEMFKDFQLRQPPAVPARKGEQTS
SGTLSAFASYFNSKVGIPQENADHDDFDANQLLNKINEPPKPAPRQVSLPVTKSTDNAFENPFFKDSFGSSQASV
ASSQPVSSEMYRDPFGNPFA

FIGURE 97

GCCGGGGAAGTCATGCTCGCTTCACGGAGGCAATAGCTAGCCGGTGTCTGTGGGAGGTTATGTTTATTTGAGACT
TCTCCATCGGGATCGCCTGGTGTCACCAAGTGTCCACTGGTACTGAGGTTTGCTGCCTGCCTTCTTGCC**ATG**TCT
AACGAAGTAGAAACAAGTGCAACCAATGGTCAGCCCGACCAACAGGCCGCACCAAAAGCACCCTCAAAGAAGGAA
AAAAAGAAAGGCCCTGAAAAGACAGATGAATATCTCCTAGCAAGGTTCAAAGGCGATGGCGTAAAATATAAGGCC
AAGCTGATTGGCATTGATGATGTGCCAGATGCAAGAGGGGATAAAATGAGCCAAGACTCTATGATGAAACTAAAG
GGAATGGCGGCACGTGGTCGGTCTCAGGGACAACACAAACAAAGGATCTGGGTCAACATTTCCCTTTCTGGGATA
AAAATAATTGATGAGAAACTGGGGTAATAGAGCATGAACATCCAGTAAATAAGATTTCTTTCATTGCCCGTGAT
GTGACAGACAACCGGGCATTTGGTTACGTGTGTGGAGGAGAAGGCCAGCATCAGTTTTTTACCATAAAAACCGGG
CAACAGGCTGAACCATTAGTTGTTGATCTTAAAGACCTTTTTCAAGTTATCTATAATGTAAAGAAAAAGGAAGAA
GAAAAGAAAAAGATAGAGGAAGCCAGCAAAGCAGTTGAGAATGGGAGTGAGGCCCTAAGGATTCTAGATGACCAA
ACTAACAAACTGAAATCGGGTGTTGACCAGATGGATTTGTTTGGGGACATGTCTACACCTCCTGACCTAAATAGT
CCAACAGAAAGCAAAGATATCCTGTTAGTGGATCTAAACTCTGAAATCGACACCAATCAGAATTCTTTAAGAGAA
AATCCATTCTTAACAAACGGCATCACCTCCTGTTCTCTTCCTCGACCAACGCCTCAGGCATCCTTCTTGCCTGAA
AATGCCTTTTCTGCCAATCTCAACTTCTTTCCCACCCCTAATCCTGATCCTTTCCGTGACGATCCTTTCACACAG
CCAGACCAATCGACACCTTCTTCGTTTGATTCTCTCAAATCTCCAGATCAGAAGAAAGAGAATTCGAGTAGCTCG
TCTACTCCGCTGAGTAATGGGCCCCTGAATGGTGATGTTGACTACTTTGGTCAGCAATTTGACCAGATCTCTAAC
CGGACTGGCAAACAGGAAGCTCAGGCAGGCCCATGGCCCTTTTCAAGTTCGCAAACCCAGCCAGCAGTGAGAACT
CAAAATGGGGTATCTGAAAGAGAACAGAACGGCTTCTCTGTCAAATCCTCCCCGAACCCTTTTGTGGGAAGCCCT
CCCAAAGGACTGTCCATACAGAATGGCGTAAAGCAGGACTTGGAAAGCTCTGTCCAGTCCTCACCACATGACTCC
ATAGCCATTATCCCACCTCCACAAAGTACCAAACCAGGAAGAGGCAGAAGGACTGCTAAGTCTTCAGCCAATGAC
TTGCTTGCATCAGACATCTTTGCTCCTCCCGTCTCAGAACCTTCAGGCCAGGCGTCACCCACAGGACAACCTACA
GCCCTGCAGCCCAACCCTCTGGATCTCTTCAAAACAAGTGCTCCTGCCCCAGTGGGGCCCCTGGTGGGTCTAGGT
GGTGTAACTGTCACACTCCCTCAGGCAGGACCATGGAACACAGCATCTTTGGTCTTCAATCAGTCCCCTTCAATG
GCTCCGGGAGCCATGATGGGTGGTCAACCTTCAGGTTTTAGTCAGCCCGTCATTTTGGTACAAGTCCAGCTGTT
TCAGGTTGGAACCAGCCTTCACCCTTTGCAGCCTCAACTCCCCCTCCAGTGCCTGTTGTCTGGGGCCCTTCTGCA
TCTGTGGCACCCAATGCTTGGTCAACAACAAGCCCTTTGGGGAATCCTTTTCAGAGCAATATTTTTCCAGCTCCT
GCTGTGTCCACTCAGCCCCCATCCATGCACTCCTCTCCTGGTCACTCCTCCTCAGCCACCTCCCAGAGCTGGC
CCTCCCAAGGACATCTCCAGTGATGCCTTCACTGCCTTAGACCCACTTGGGGATAAAGAGATCAAGGATGTGAAA
GAAATGTTTAAGGATTTCCAACTGCGGCAGCCACCTGCTGTGCCCGCGCGGAAGGGAGAGCAGACTTCTTCTGGG
ACTTTGAGTGCCTTTGCCAGTTATTTCAACAGCAAGGTTGGCATTCCTCAGGAGAATGCAGACCATGATGACTTT
GATGCTAATCAACTATTGAACAAGATCAATGAACCACCAAAGCCAGCTCCCAGACAAGTTTCCCTGCCAGTTACC
AAATCTACTGACAATGCATTTGAGAACCCTTTCTTTAAAGATTCTTTTGGTTCATCACAAGCCTCTGTGGCTTCT
TCTCAACCTGTATCTTCTGAGATGTATAGGGATCCATTTGGAAATCCTTTTGCC**TAA**ATTCTGAACTTGGTCTGC
AGACCATCCAGAGGAATAAAAAGGTTGGCCTTAGTAGTCAAAAACAAAGCTGATAGCCAGACACGTTCTGATTTC
TGCCCTTGTTCCAGCTTTGACGTATTATCTGTTGCCTTATTTCTCATTGCCTCTTCTACTTGTAAAATGCTTTTC
ACTTTCTGTCTAGGTTAAAGCTAAACTGAATCTATGGCTTTAAATAAATTAAGATCCTAAACTCTCTAGCTTAAG
TGTAAATGAAGTACAGTAGTTTCCCTACTGAACCCTACCTCTTGTGTCCCTGGAACCTTCTAGAACACCTGCCTT
CTACCCTCTGGTTGGGAGATGCAGCCACCACATCCCTTCATATCATACTGTTTTGAATAAATTTTCAAATCCTTA
TTGTTCAGAGTTGTTTGGGGGTTCTGTTTCAGAGCATAAAACCTAAAGGTTATAGTAGAACAAGGCACCTTCTTA
AAAGAAATCTTGCTTCAGACCATCAGTTACAGAGAATTTCCTAAAGTAAAATTGAAGCAACTACAACTTCTCCTT
AGACACTTTGGAATCTAACCACTTAAGGACCTTTTTAAAGAGATAGCTTCTCTTCTTTCTGAAGATCAATTTCTC
CCAAGGCCAAGATTGTCCTTTTCTCCCATTTCTTGCTAGCTATTGCAAATGAGGGAAGAACATTATTCATCTCTC
CTCCCCTTTTTTTTCTGATTCTTTTTTCAGTCAGTTTTGCTCCTGGGTTCAAGTAGTATTACCACCCTTTCACAA
GCAACAGACTCTCACAGGGCAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 98

MSNEVETSATNGQPDQQAAPKAPSKKEKKKGPEKTDEYLLARFKGDGVKYKAKLIGIDDVPDARGDKMSQDSMMK
LKGMAARGRSQGQHKQRIWVNISLSGIKIIDEKTGVIEHEHPVNKISFIARDVTDNRAFGYVCGGEGQHQFFTIK
TGQQAEPLVVDLKDLFQVIYNVKKKEEEKKKIEEASKAVENGSEALRILDDQTNKLKSGVDQMDLFGDMSTPPDL
NSPTESKDILLVDLNSEIDTNQNSLRENPFLTNGITSCSLPRPTPQASFLPENAFSANLNFFPTPNPDPFRDDPF
TQPDQSTPSSFDSLKSPDQKKENSSSSSTPLSNGPLNGDVDYFGQQFDQISNRTGKQEAQAGPWPFSSSQTQPAV
RTQNGVSEREQNGFSVKSSPNPFVGSPPKGLSIQNGVKQDLESSVQSSPHDSIAIIPPPQSTKPGRGRRTAKSSA
NDLLASDIFAPPVSEPSGQASPTGQPTALQPNPLDLFKTSAPAPVGPLVGLGGVTVTLPQAGPWNTASLVFNQSP
SMAPGAMMGGQPSGFSQPVIFGTSPAVSGWNQPSPFAASTPPPVPVVWGPSASVAPNAWSTTSPLGNPFQSNIFP
APAVSTQPPSMHSSLLVTPPQPPPRAGPPKDISSDAFTALDPLGDKEIKDVKEMFKDFQLRQPPAVPARKGEQTS
SGTLSAFASYFNSKVGIPQENADHDDFDANQLLNKINEPPKPAPRQVSLPVTKSTDNAFENPFFKDSFGSSQASV
ASSQPVSSEMYRDPFGNPFA

FIGURE 99

AGCGCTCAGATACGCGACGCGTAGCAGGCGGGGACCGAACGGGTGCCTCAGTGTCCTTCCCCTCCCCTCGCCTGG
CCTCGCCGTCCTCTCCCCGCAGCCGGACCGGAACTATGTGATCCCGGAAGTTCCGGGGCCTTTGCTGTGTGGGAT
AAACAGTA**ATG**GCGGAGGCTGCAACTCCCGGAACAACAGCCACAACATCAGGAGCAGGAGCGGCAGCGGCGACGG
CGGCAGCAGCCTCCCCCACCCCGATCCCCACAGTCACCGCCCCGTCCCTGGGGGCGGGCGGAGGGGGCGGCGGCA
GCGACGGCAGCGGCGGCGGCTGGACTAAACAGGTCACCTGCAGGTATTTTATGCATGGGGTTTGTAAGGAAGGAG
ACAACTGTCGCTACTCGCATGACCTCTCTGACAGTCCGTATAGTGTAGTGTGCAAGTATTTTCAGCGAGGGTACT
GTATTTATGGAGACCGCTGCAGATATGAACATAGCAAACCATTGAAACAGGAAGAAGCAACTGCTACAGAGCTAA
CTACAAAGTCATCCCTTGCTGCTTCCTCAAGTCTCTCATCGATAGTTGGACCACTTGTTGAAATGAATACAGGCG
AAGCTGAGTCAAGAAATTCAAACTTTGCAACTGTAGGAGCAGGTTCAGAGGACTGGGTGAATGCTATTGAGTTTG
TTCCTGGGCAACCCTACTGTGGCCGTACTGCGCCTTCCTGCACTGAAGCACCCCTGCAGGGCTCAGTGACCAAGG
AAGAATCAGAGAAAGAGCAAACCGCCGTGGAGACAAAGAAGCAGCTGTGCCCCTATGCTGCAGTGGGAGAGTGCC
GATACGGGGAGAACTGTGTGTATCTCCACGGAGATTCTTGTGACATGTGTGGGCTGCAGCTCCTGCATCCAATGG
ATGCTGCCCAGAGATCGCAGCATATCAAATCGTGCATTGAGGCCCATGAGAAGGACATGGAGCTCTCATTTGCCG
TGCAGCGCAGCAAGGACATGGTGTGTGGGATCTGCATGGAGGTGGTCTATGAGAAAGCCAACCCCAGTGAGCGCC
GCTTCGGGATCCTCTCCAACTGCAACCACACCTACTGTCTCAAGTGCATTCGCAAGTGGAGGAGTGCTAAGCAAT
TTGAGAGCAAGATCATAAAGTCCTGCCCAGAATGCCGGATCACATCTAACTTTGTCATTCCAAGTGAGTACTGGG
TGGAGGAGAAAGAAGAGAAGCAGAAACTCATTCTGAAATACAAGGAGGCAATGAGCAACAAGGCGTGCAGGTATT
TTGATGAAGGACGTGGGAGCTGCCCATTTGGAGGGAACTGTTTTTACAAGCATGCGTACCCTGATGGCCGTAGAG
AGGAGCCACAGAGACAGAAAGTGGGAACATCAAGCAGATACCGGGCCCAACGAAGGAACCACTTCTGGGAACTCA
TTGAGGAAAGAGAGAACAGCAACCCCTTTGACAACGATGAAGAAGAGGTTGTCACCTTTGAGCTGGGCGAGATGT
TGCTTATGCTTTTGGCTGCAGGTGGGGACGACGAACTAACAGACTCTGAAGATGAGTGGGACTTGTTTCATGATG
AGCTGGAAGATTTTTATGACTTGGATCTA**TAG**CAACCTTGCGTGGCGTGTGAACTGGTCTGCTGACCTCAGACAG
CAGCTGTCCCCTGTGGTGGTGTGGCAGTGCCTGTGTTCTCTCCTAGGCAGGCCTCTCAACTCCAGGTGCTGTCCT
AAGAATTTTTACCCAGGGCCTGTCTTCTCAACCCCTCACCTTTCCCTGAGGAGTGTGTTGTTTTCCCTGTTGAAA
AAAGTTACAAAAATAAATCTTAAAGTTAGTTTTTTGTAACACGAATTTAACTGTCAGACAGTTAGTGTAGGTGTG
TTGCGTCATCTGTTTTCAACCAGATTGCATTTATGGACTTTTCACACACTCATTTTGAGGACCCCAGGTTCAAAA
GTAAAAGCAGTGGCCCTGCTTTGGGGTCCAAGAATAGGAGTGATGGGTGAAGGGACCTAAGCTGGCCAATAGCCC
TCTGCCCCAGACATGGGATGTGGATCCTTGAGGTTTCTGGTGAAATCTGCACATCTGTGTTTTTATATCTGTTCC
CTACCCTGTAATCCCTACCACGTGCACTTGTTCTGTGGTTTTGGTCTCTTGTTTAATTGCACACAAGTAATACTA
CTGGGTAACCAGAATCAGGTGTGAATGTGTTGAGATTTTTACTGTTTTGCATGATAGGAAAATTGAGAAAGAAT
ACGTATAAAAGATAGAGAGGCATAACATCAATGCAGAGTTGGAAGTTGGCTCCCAAGGGCTGACATGGTGTGAGT
GTGTGGGTGTGTGATAAGCTTCTCATCCCTGCATAGATGCAGTATTCTTAGCCTTAGTAGAAAACCTGGTTTAG
TGGTTTAAGCCTTGTGTGGCAGATAGATCTTAAAGGGCAAAGCAGTATATTGGTAGTTGTCAATATAGCAGTGCT
AGCTCTGTCTATATAAATAGAGAAATGGGGTTAGCCATAGAGGTTAAAACTACCTGGTTATCCCATATAATAACA
CAAACTGGGTCTTGGATACACAGTTGTATTTAATGTTTTACGATCTAGCCTTTCCAGTACAGGCACTTTCTGAGA
AACCTTTGTCCTCACTTGAGGCATTTTGTTGTCGGGTTTTTGTGTTTGTTTTGTGGGTATTTGCCTCATTCCAC
CCCTGAGCTTTCAGGTAGACAGACGTGATTCAAAACTCTGTTCTAAGGTGTTTATTGTAGTGGAGTAATGGGTTT
GCAGTGATAAGTCATACTTTTCCACCGAAAGGGAGGGCTTGGGAATCCCTGAGATTAGCTAAAGTTAAGTTGTTG
GAAGAATTCCTTGATTGGAAATTGTACCTTTGTGTTTTGTTGCTCTGTTTCCTGAAAATAACTCGGGGATGCTCC
TGGTTTGTCCATCTACTGCTTTGATTCCTTGGATCCCACCCATTCTTTCACTTTAAGAAAAAACAAATAATTGTT
GCAGAGGTCTCTGTATTTTGCAGCTGCCCTTTTGTAAGAAGCACTTTTCCCAAATAAACAATTAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 100

MAEAATPGTTATTSGAGAAAATAAAASPTPIPTVTAPSLGAGGGGGGSDGSGGGWTKQVTCRYFMHGVCKEGDNC
RYSHDLSDSPYSVVCKYFQRGYCIYGDRCRYEHSKPLKQEEATATELTTKSSLAASSSLSSIVGPLVEMNTGEAE
SRNSNFATVGAGSEDWVNAIEFVPGQPYCGRTAPSCTEAPLQGSVTKEESEKEQTAVETKKQLCPYAAVGECRYG
ENCVYLHGDSCDMCGLQLLHPMDAAQRSQHIKSCIEAHEKDMELSFAVQRSKDMVCGICMEVVYEKANPSERRFG
ILSNCNHTYCLKCIRKWRSAKQFESKIIKSCPECRITSNFVIPSEYWVEEKEEKQKLILKYKEAMSNKACRYFDE
GRGSCPFGGNCFYKHAYPDGRREEPQRQKVGTSSRYRAQRRNHFWELIEERENSNPFDNDEEEVVTFELGEMLLM
LLAAGGDDELTDSEDEWDLFHDELEDFYDLDL

FIGURE 101

AGATGTTTAAAAATACTTTGATXCTCXGTTTCCACCTCTCTTAAATTGTCTTTCCCTATGTTAAATATACAGTCA
TCACXTTGCTGAAAAAAGTTCGCAATGAGAACAATCATCTAAAAXTGGCTGTAACTAGGTCAGGCGCGGTTGCTC
ATGCCTGTAATCCCACCACTTTGGGAGGCCGAGGCAATTGGATCACCTGAGGTCAGGATTTTGAGACCAGCTTGA
CCAACATGGTGGAATCCCATCTCTACTAAAAATACAAAAAATTAGCCGGGTGTGGTGGCACACCCCTGTAATCCC
ACCTACTCAGGAGGCTGAGGCAGGAAAATCCCTTGAACCCAGGAGGCAAAGGTTGCATTGAGCCGAAATAACACC
ACTGCACTCCAGCCTGGACGATAGAGTGAGACCCCATCTCAAAAAAAGAGCAGCTGTGACAAATGCCTGTATTGA
ATTGCAGGTCAGTCTTCCACCTCCACTACCGGTGCCAAAAAAGGGCTGCCCCAAAAGGAACTAAAAGGGATCCA
GCTTTGAATTCTGGTGTCTCTCAAAAGCCTGATCCTGCCAAAACCAAGAATCGCCGCAAAAGGAAGCCATCCACT
TCTGATGATTCTGACTCTAATTTTGAGAAAATTGTTTCGAAAGCAGTCACAAGCAAGGTGAGTGTTGATCCTAGT
CAGTCCTTTTGCTGTAGATGTTCTGAAACACGTAACTAAGCCATTGTTCTTAAAAATTTGGCATATCTTTAAGAA
AATTAACTCTCATATTCTGTTAGCTTTTACTGTACATATTTAGTTTTAACAAAGTTAAATATGCCACTTATTTGG
CCAATGGAAGAGTTGGCCTTAGATCTGCTTCTTATTACTTGGTAGAAAATAGAAAACTCCTTGAATATAGTGTCT
TGATACATTTTTTTACATTACAATTATGTTGTCAGATTTACAATGTGCAAGTTACCTGGGCTTTTCTCTTTTAGA
AATCCAAGGGGGAGAGTGATGACTTCCATATGGACTTTGACTCAGCTGTGGCTCCTCGGGCAAAATCTGTACGGG
CAAAGAAACCTATAAAGTACCTGGAAGAGTCAGATGAAGATGATCTGTTTTAAAATGTGAGGCGATTATTTTAAG
TAATTATCTTACCAAGCCCAAGACTGGTTTTAAAGTTACCTGAAGCTCTTAACTTCCTCCCCTCTGAATTTAGTT
TGGGGAAGGTGTTTTTAGTACAAGACATCAAAGTGAAGTAAAGCCCAAGTGTTCTTTAGCTTTTTATAATACTGT
ATAAATAGTGACCATCTCATGGGCATTGTTTTCTTCTCTGCTTTGTCTGTGTTTTGAGTCTGCTTCTTTTGTCTT
TAAAACCTGATTTTTAAGTTCTTCTGAACTGTAGAAATAGCTATCTGATCACTTCAGCGTAAAGCAGTGTGTTTA
TTAACCATCCACTAAGCTAAAACTAGAGCAGTTTGATTTAAAAGTGTCACTCTTCCTCCTTTTCTACTTTCAGTA
GATATGAGATAGAGCATAATTATCTGTTTATCTTAGTTTTATACATAATTTACCATCAGATAGAACTTTATGGT
TCTAGTACAGATACTCTACTACACTCAGCCTCTTATGTGCCAAGTTTTTCTTTAAGCAATGAGAAATTGCTCATG
TTCTTCATCTTCTCAAATCATCAGAGGCCGAAGAAAAACACTTTGGCTGTGTCTATAACTTGACACAGTCAATAG
AATGAAGAAATTAGAGTAGTTATGTGATTATTTCAGCTCTTGACCTGTCCCCTCTGGCTGCCTCTGAGTCTGAA
TCTCCCAAAGAGAGAAACCAATTTCTAAGAGGACTGGATTGCAGAAGACTCGGGGACAACATTTGATCCAAGATC
TTAAATGTTATATTGATAACCATGCTCAGCAATGAGCTATTAGATTCATTTGGGAAATCTCCATAATTTCAATT
TGTAAACTTTGTTAAGACCTGTCTACATTGTTATATGTGTGTGACTTGAGTAATGTTATCAACGTTTTTGTAAAT
ATTTACTATGTTTTTCTATTAGCTAAATTCCAACAATTTTGTACTTTAATAAAATGTTCTAAACATTGAAA

FIGURE 102

TAGCTGGATTCCAGCCATTGCTGCAGCTGCTCCACAGCCCTTTTCAGGACCCAAACAACCGCAGCCGCTGTTCCC
AGG**ATG**GTGATCCGTGTATATATTGCATCTTCCTCTGGCTCTACAGCGATTAAGAAGAAACAACAAGATGTGCTT
GGTTTCCTAGAAGCCAACAAAATAGGATTTGAAGAAAAGATATTGCAGCCAATGAAGAGAATCGGAAGTGGATG
AGAGAAAATGTACCTGAAAATAGTCGACCAGCCACAGGTTACCCCCTGCCACCTCAGATTTTCAATGAAAGCCAG
TATCGCGGGGACTATGATGCCTTCTTTGAAGCCAGAGAAAATAATGCAGTGTATGCCTTCTTAGGCTTGACAGCC
CCACCTGGTTCAAAGGAAGCAGAAGTGCAAGCAAAGCAGCAAGCA**TGA**ACCTTAAGCACTGTGCTTTAAGCATCC
TGAAAAATGAGTCTCCATTGCTTTTATAAAATAGCAGAATTAGCTTTGCTTCAAAAGAAATAGGCTTAATGTTGA
AATAATAGATTAGTTGGGTTTTCACATGCAAACATTCAAAATGAATACAAAATTAAAATTTGAACATTATGGTGA
TTATGGTGAGGAGAATGGGATATTAACATAAAATTATATTAATAAGTAGATATCGTAGAAATAGTGTTGTTACCT
GCCAAGCCATCCTGTATACACCAATGATTTTACAAAGAAACACCCTTCCCTCCTTCTGCCATTACTATGGCAAC
TTAAGTGTATCTGCAGCTCTACATTAAAAAGGAGAAAGAGAAATAACCTGTCTCTCATTCCTAAGTTGCCTCATT
AATTTTCATGAACAAGAATATGTACCTTTTTGATGCTATATTACTGCGATTAAAAAAGTTCTTGCAGGTAATGTT
TATGTATAGTTAAACGTTGTAATTTCTTATCGTAATTATAACATTCCCATTCTTTGTAGATGAAACTCTACATAT
GAACCACAGATTTTCTGAGCTTCTAAATGTAGCCTTTCATTGCACATTTCAGTGATCAGAATAGATATCCTTTTA
CACGCACAAAAGCAATAGATTCATTCAGTGGACAAGTTCCTTGTTAACTACACAGCTATGATGGAATCATATAT
CCAAGTTCCTTGCCTCAGTGAAATATGCATATGTATATCATGAAGTGGGATGCCAAGTAAGCTTAAAATGCATTC
TCTAGCAAAGAGATTAGACTTTTAAATAACTCTTATAAAACAGGTTGGCGATCATTTCCCAAGATTGGTTTCCCT
TGAGTTTTTGTTAAAACAAATCTTAGTAGTTTTGCCCGTTTAAAACAACTCACAATCGTAAATGCTACTATTCCT
AAGATATCTTACCTTTTTATTTCAGTTTAGCCATGTATTGTATGAGTGTATTAGTCTAAGCAGTGAGAATCTTTT
CTATGCCTCTATTCCAGCAAAAAGTAGAAGTATCAAATAAAAAGGGCAACTTTTAAAATATTAAGCCTGAAGACT
TCTAAAAAGACAAGAAACATGGCCTAAATAACCAACATAGATTTACATAGTAAGTTTCACACTACCTTATTACCA
AAAGCAAACACCTCTTACTTTAAACTACATTATCATGTATATCTATTGTATGCTGGTCTTTACTTTTTGCCAAAA
TCAACATATAATGAAGAGATGCCTTTGTTTGATGAGATTCAAACTTGATGCTATGCTTTAAAATAAACTCAGTAC
TTTTAGAAACATAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 103

MVIRVYIASSSGSTAIKKKQQDVLGFLEANKIGFEEKDIAANEENRKWMRENVPENSRPATGYPLPPQIFNESQY
RGDYDAFFEARENNAVYAFLGLTAPPGSKEAEVQAKQQA

FIGURE 104

GCCGCGCCGGCTCTGGGCACTCAGCATCGTTTCCTTTTCCTCCGCTGGAGCAGCT**ATG**GCGGCGGTGAAGACCCT
GAACCCCAAGGCCGAGGTGGCCCGAGCGCAGGCGGCGCTGGCGGTCAACATCAGCGCAGCGCGGGGTCTGCAGGA
CGTGCTAAGGACCAACCTGGGGCCCAAGGGCACCATGAAGATGCTCGTTTCTGGCGCTGGAGACATCAAACTTAC
TAAAGACGGCAATGTGCTGCTTCACGAAATGCAAATTCAACACCCAACAGCTTCCTTAATAGCAAAGGTAGCAAC
AGCCCAGGATGATATAACTGGTGATGGTACGACTTCTAATGTCCTAATCATTGGAGAGCTGCTGAAACAGGCGGA
TCTCTACATTTCTGAAGGCCTTCATCCTAGAATAATCACTGAAGGATTTGAAGCTGCAAAGGAAAAGGCCCTTCA
GTTTTTGGAAGAAGTCAAAGTAAGCAGAGAGATGGACAGGGAAACACTTATAGATGTGGCCAGAACATCTCTTCG
TACTAAAGTTCATGCTGAACTTGCAGATGTCTTAACAGAGGCTGTAGTGGACTCCATTTTGGCCATTAAAAAGCA
AGATGAACCTATTGATCTCTTCATGATTGAGATCATGGAGATGAAACATAAATCTGAAACTGATACAAGCTTAAT
CAGAGGGCTTGTTTTGGACCACGGAGCACGGCATCCTGATATGAAGAAAAGGGTGGAGGATGCATACATCCTCAC
TTGTAACGTGTCATTAGAGTATGAGAAAACAGAAGTGAATTCTGGCTTTTTTTACAAGAGTGCAGAAGAGAGAGA
AAAACTCGTGAAAGCTGAAAGAAAATTCATTGAAGATAGGGTTAAAAAAATAATAGAACTGAAAAGGAAAGTCTG
TGGCGATTCAGATAAAGGATTTGTTGTTATTAATCAAAAGGGAATTGACCCCTTTTCCTTAGATGCTCTTTCAAA
AGAAGGCATAGTCGCTCTGCGCAGAGCTAAAAGGAGAAATATGGAGAGGCTGACTCTTGCTTGTGGTGGGGTAGC
CCTGAATTCTTTTGACGACCTAAGTCCTGACTGCTTGGGACATGCAGGACTTGTATATGAGTATACATTGGGAGA
AGAGAAGTTTACCTTTATTGAGAAATGTAACAACCCTCGTTCTGTCACATTATTGATCAAAGGACCAAATAAGCA
CACACTCACTCAGATCAAAGATGCAGTGAGGGACGGCTTGAGGGCTGTCAAAAATGCTATTGATGATGGCTGTGT
GGTTCCAGGTGCTGGTGCCGTGGAAGTGGCAATGGCAGAAGCCCTGATTAAACATAAGCCCAGTGTAAAGGGCAG
GGCACAGCTTGGAGTCCAAGCATTTGCTGATGCATTGCTCATTATTCCCAAGGTTCTTGCTCAGAACTCTGGTTT
TGACCTTCAGGAAACATTAGTTAAAATTCAAGCAGAACATTCAGAATCAGGTCAGCTTGTGGGTGTGGACCTGAA
CACAGGTGAGCCAATGGTGGCAGCAGAAGTAGGCGTATGGGATAACTATTGTGTAAAGAAACAGCTTCTTCACTC
CTGCACTGTGATTGCCACCAACATTCTCTTGGTTGATGAGATCATGCGAGCTGGAATGTCTTCTCTGAAAGGT**TG
A**ATTGAAGCTTCCTCTGTATCTGAATCTTGAAGACTGCAAAGTGATCCTGAGGATTACAGCTGTGGAATTTTTGT
CCAAGCTTCAAATAATTTTGAAAGAAATTTTCCCATATGAAAAAAGGAGAGAACACTGGCATCTGTTGAAATTTG
GAAGTTCTGAAATTATAGTATTTTTAAAAATTGCACTGAAGTGTATACACATAAAGCAGGTCTTTTATCCAGTGA
ACAGGATGTTTTGCTTTAGCAGCAGTGACATAAAATTCCATGTTAGATAAGCATATGTTACTTACCTTGTTATTA
AATATTTCTTGAAAAGCAAATTTTAATGGTTAATTTTATGTGGACGTATGTTAAATTATCCAAACTACCCTATTG
TTAAGCATTTGGTTTTAAAATTTTTATGCTAATATAAATGCTCAAGTAATTTAAAATATTGAAAGCATCCCTGTT
GGTATAAATTTCTGAGTAAATGCATTGGATCAGTTGGACTTTGAACGCCCTTTGAAATGGCTTTGCTAAAATGCT
CCCGCCACAAAGTTGTAGGAAATGGGAAGAGGAGTCAACTAGAGGCAAGGGAGTTGAGAGAGCTGCAACTGTAAA
GGGCAAGAACAGGCAGAGGTAAAAAGATGATGGAAGGTGTGGTGACTAAGGGCCACGGTTATTGGGTGAAATTTG
AGATGTAGGCCAACTGTATTTTCAAGCTTCTGAACTTAAGGCAAAATATTCATCGCAAAGTCTCTAGCGTCATAT
TTTTCTCACCCAAATTACGTTTCCACGAGTTATTATATATAGTTGGTCTATCTCTGCAGTCCTTGAAGGTGAAGT
TGTGTGTTACTAGGCTGTGTTTTGGGATGTCAGCAGTGGCCTGAAGTGAGTTGTGCAATAAATGTTAAGTTGAAA
CCTCAAAAAAAA

FIGURE 105

MAAVKTLNPKAEVARAQAALAVNISAARGLQDVLRTNLGPKGTMKMLVSGAGDIKLTKDGNVLLHEMQIQHPTAS
LIAKVATAQDDITGDGTTSNVLIIGELLKQADLYISEGLHPRIITEGFEAAKEKALQFLEEVKVSREMDRETLID
VARTSLRTKVHAELADVLTEAVVDSILAIKKQDEPIDLFMIEIMEMKHKSETDTSLIRGLVLDHGARHPDMKKRV
EDAYILTCNVSLEYEKTEVNSGFFYKSAEEREKLVKAERKFIEDRVKKIIELKRKVCGDSDKGFVVINQKGIDPF
SLDALSKEGIVALRRAKRRNMERLTLACGGVALNSFDDLSPDCLGHAGLVYEYTLGEEKFTFIEKCNNPRSVTLL
IKGPNKHTLTQIKDAVRDGLRAVKNAIDDGCVVPGAGAVEVAMAEALIKHKPSVKGRAQLGVQAFADALLIIPKV
LAQNSGFDLQETLVKIQAEHSESGQLVGVDLNTGEPMVAAEVGVWDNYCVKKQLLHSCTVIATNILLVDEIMRAG
MSSLKG

FIGURE 106A

GGCACGAGCGGCGGAGGCAGTGTCTCCCGGTCGCGCGTGGAGGTCGGTCGCTCAGAGCTGCTGGGCGCAGTTTCT
CCGCCTGCTGCTTCGGCGCGGCTGTATCGGCGAGCGAGCGAGTTCCCGCGAGTTCTCGGTGGCGCTCCCCCTTCC
TTTCAGTCTCCACGGACTGGCCCCTCGTCCTTCTACTTGACCGCTCCCGTCTTCCGCCGCCTTCTGGCGCTTTCC
GTTGGGCCGATTCCCGCCCGCTTCCTCCTGCTTCCCATCGAAGCTCTAGAAATGAATGTTTCCATCTCTTCAGAG
ATGAACCAGATTATGATGCATCATTATCACAGAAGAAATTCGTGTCTATAGCTTTTAAGGACTTGATTACATCAT
TTTCAAGCCTGATAGTTTTGGAATCACCATTAGAGCTTAAGACACACCTGCCTTCATTTCAACCACCTGTCTTCA
TACCCTGACGAAGTGCACCTTTTAACACTCCTTTGTCCTTGGATTACTTAAGAGTTCCCAGAAATACATTTGCCA
CCAACAGAGTAGCCAAATTTATAAGGAAAA**ATG**ATTCCCAATGGATATTTGATGTTTGAGGATGAAAATTTTATT
GAGTCTTCTGTTGCCAAATTAAATGCCCTGAGGAAAAGTGGCCAGTTCTGTGATGTTCGACTTCAGGTCTGTGGC
CATGAAATGTTAGCACACAGAGCAGTGCTAGCTTGCTGCAGTCCCTATTTATTTGAAATCTTTAATAGTGATAGT
GATCCTCATGGAATTTCTCACGTTAAATTTGATGATCTCAATCCAGAAGCTGTTGAAGTCTTGTTGAATTATGCC
TACACTGCTCAGTTGAAAGCAGATAAGGAATTGGTAAAAGATGTTTATTCTGCAGCAAAAAAGCTGAAGATGGAT
CGAGTAAAGCAGGTTTGTGGTGATTATTTACTGTCTAGAATGGATGTTACCAGCTGCATCTCTTACCGAAATTTT
GCAAGTTGTATGGGAGACTCCCGTTTGTTGAATAAGGTTGATGCTTATATTCAGGAGCATTTGTTACAAATTTCT
GAAGAGGAGGAGTTTCTTAAGCTTCCAAGGCTAAAGTTGGAGGTAATGCTTGAAGATAATGTTTGCTTGCCCAGC
AATGGCAAATTATATACAAAGGTAATCAACTGGGTGCAGCGTAGCATCTGGGAGAATGGAGACAGTCTGGAAGAG
CTGATGGAAGAGGTTCAAACCTTGTACTACTCAGCTGATCACAAGCTGCTTGATGGGAACCTACTAGATGGACAG
GCTGAGGTGTTTGGCAGTGATGATGACCACATTCAGTTTGTGCAGAAAAAGCCACCACGTGAGAATGGCCATAAG
CAGATAAGTAGCAGTTCAACTGGATGTCTCTCTTCTCCAAATGCTACAGTACAAAGCCCTAAGCATGAGTGGAAA
ATCGTTGCTTCAGAAAAGACTTCAAATAACACTTACTTGTGCCTGGCTGTGCTGGATGGTATATTCTGTGTCATT
TTTCTTCATGGGAGAAACAGCCCACAGAGCTCACCAACAAGTACTCCAAAACTAAGTAAGAGTTTAAGCTTTGAG
ATGCAACAAGATGAGCTAATCGAAAAGCCCATGTCTCCTATGCAGTACGCACGATCTGGTCTGGGAACAGCAGAG
ATGAATGGCAAACTCATAGCTGCAGGTGGCTATAACAGAGAGGAATGTCTTCGAACAGTCGAATGCTATAATCCA
CATACAGATCACTGGTCCTTTCTTGCTCCCATGAGAACACCAAGAGCCCGATTTCAAATGGCTGTACTCATGGGC
CAGCTCTATGTGGTAGGTGGATCAAATGGCCACTCAGATGACCTGAGTTGTGGAGAGATGTATGATTCAAACATA
GATGACTGGATTCCTGTTCCAGAATTGAGAACTAACCGTTGTAATGCAGGAGTGTGTGCTCTGAATGGAAAGTTA
TACATCGTTGGTGGCTCTGATCCATATGGTCAAAAAGGACTGAAAAATTGTGATGTATTTGATCCTGTAACAAAG
TTGTGGACAAGCTGTGCCCCTCTTAACATTCGGAGACACCAGTCTGCAGTCTGTGAGCTTGGTGGTTATTTGTAC
ATAATCGGAGGTGCAGAATCTTGGAATTGTCTGAACACAGTAGAACGATACAATCCTGAAAATAATACCTGGACT
TTAATTGCACCCATGAATGTGGCTAGGCGAGGAGCTGGAGTGGCTGTTCTTAATGGAAAACTGTTTGTATGTGGT
GGCTTTGATGGTTCTCATGCCATCAGTTGTGTGGAAATGTATGATCCAACTAGAAATGAATGGAAGATGATGGGA
AATATGACTTCACCAAGGAGCAATGCTGGGATTGCAACTGTAGGGAACACCATTTATGCAGTGGGAGGATTCGAT
GGCAATGAATTTCTGAATACGGTGGAAGTCTATAACCTTGAGTCAAATGAATGGAGCCCCTATACAAAGATTTTC
CAGTTT**TAA**CAAATTTAAGACCCTCTCAAACTAACAGGCTTAGTGATGTAATTATGGTTAGCAGAGGTACACTTG
TGAATAAAGAGGGTGGGTGGGTATAGATGTTGCTAACAGCAACACAAAGCTTTTGCATATTGCATACTATTAAAC
ATGCTGTACATACTTTTTGGGTTTATTGGAAAGGAATGCAAAGATGAAGGTCTGTTTGTGTACTTTTAAGACT
TTGGTTATTTTACTTTTTGGAAAAGAATAAACCAAGAATTGATTGGGCACATCATTTCAAGAAGTCCCCTCTCCT
CCACATTTGTTTTGCCAATTTGCACATTAAATGACTCTTCCCTCAAATGTGTACTATGGGGTAAAAGGGGTAGGG
TTTAAAGATGTAGACAGTTGGGTTTTTTAAGGGCCCTTTTTCAATAACTGGACACTCTATAACAAAGGATACTT
ATTTAAATAGATGACATTGACTATTTTTGTTTTTATTAAAAGGAAGCTTACATGCCTACCAATATTTAATCTTTT
ATGATTGCCTTTTTATAACTTTTTATATTCTCAGCAGAGTGCTTTACCAATTGAAGTAAAATGTGGCAGGCTGGA
GTTATTGAAGCAGAGTGGCAGTCTTCAGTTTGCAGAGTAGGGGTCTGTCTTTTAAACTCTGAGTGCAAACTTCAG
AGTTCTTGCCTTGGCTGCAGTTTTTTTCCTTCAAGAATGCAGTACTAACATTTATTTGAGTGGAGTTACTGAACA
GTAACATAGCTGTGATTTTTGGTATTTGAAACACTGGTTTTAAATATTTTGACTTGTTGAGGGTATGTTTTATAT
AGCAAGACATTATATAGCAGTAAAAAATGGTGTTTATCTTCTATATAATTCCTGTTTTTATTATTAACAAAACA
GTCCTAAATAGCAGCCCTCAATTGTGAAAAAATTTACTTTAAACTACATTAGGTTGTGAATGCAGGTTTTATCAG
AACTATGTTTTTGTTCAGTTTATCTGTTCATATGGATAAATATTGGTTGGGATGACTTGGTGTCTAATGTGTAGT
GCTACACACCTAACTTATGGGGCCAAAATAGCATGTCCTAATGCTTGCTGCTGATTTAAACACATTAAAGGTACT

FIGURE 106B

TTGCAGGAAATCCTTGCACCATGGGATTAATATCCAATTGCTGCTTGTACACTCATTCATTACTAAAAGTTTTGA
GAAATTTTTTTTTCCAGTAATGAGCTTAAGAAATTTGTGGAAAATAACTCACCTGGCATCTTACATCTGAAATAA
GGAATGATATAAGGTTTTTTTTTCTCACAGAAGATGAAGCACACAGGAACCTAATGGGCCAACTGGGATGAGGTG
ACTATTCTGAGATGACTATTCAGTGGCTAACTTGGGTTAGGAAGAAAATAATTAGGTATTTTCTCCAAATGTTCA
CTGGTACTCTGCCACTTTATTTCTCTCATCTGTTACACAAAGAACCACCAGGAAAGCAAATCAGTTTGGTTGGTA
ACTCTGTAATTCCTAACTATCACTGGTTTGGTTCTGGACTAAAACTACATTGACAGATTGAATTTGCCTAATATG
ATGACTGTTTTTAATATGGATCTGTATGTGTTCTATTCAGCCCAAGGAAATAAAATTTTAGTTGAGGATTCAAAA
AAAAAAAAAAAA

FIGURE 107

MIPNGYLMFEDENFIESSVAKLNALRKSGQFCDVRLQVCGHEMLAHRAVLACCSPYLFEIFNSDSDPHGISHVKF
DDLNPEAVEVLLNYAYTAQLKADKELVKDVYSAAKKLKMDRVKQVCGDYLLSRMDVTSCISYRNFASCMGDSRLL
NKVDAYIQEHLLQISEEEEFLKLPRLKLEVMLEDNVCLPSNGKLYTKVINWVQRSIWENGDSLEELMEEVQTLYY
SADHKLLDGNLLDGQAEVFGSDDDHIQFVQKKPPRENGHKQISSSSTGCLSSPNATVQSPKHEWKIVASEKTSNN
TYLCLAVLDGIFCVIFLHGRNSPQSSPTSTPKLSKSLSFEMQQDELIEKPMSPMQYARSGLGTAEMNGKLIAAGG
YNREECLRTVECYNPHTDHWSFLAPMRTPRARFQMAVLMGQLYVVGGSNGHSDDLSCGEMYDSNIDDWIPVPELR
TNRCNAGVCALNGKLYIVGGSDPYGQKGLKNCDVFDPVTKLWTSCAPLNIRRHQSAVCELGGYLYIIGGAESWNC
LNTVERYNPENNTWTLIAPMNVARRGAGVAVLNGKLFVCGGFDGSHAISCVEMYDPTRNEWKMMGNMTSPRSNAG
IATVGNTIYAVGGFDGNEFLNTVEVYNLESNEWSPYTKIFQF

FIGURE 108A

CGAGACGGAAGCGGGCTGGGAGGCGTCGGCGGCGGCAGCGCACGTGGTGACGTGCGAGGGGGTGCGGCGCGAGCG
GTCGGCGGCGGCGGAGGCAGTGTCTCCCGGTCGCGCGTGGAGGTCGGTCGCTCAGAGCTGCTGGGCGCAGTTTCT
CCGCCTGCTGCTTCGGCGCGGCTGTATCGGCGAGCGAGCGAGTTCCCGCGAGTTCTCGGTGGCGCTCCCCCTTCC
TTTCAGTCTCCACGGACTGGCCCCTCGTCCTTCTACTTGACCGCTCCCGTCTTCCGCCGCCTTCTGGCGCTTTCC
GTTGGGCCGATTCCCGCCCGCTTCCTCCTGCTTCCCATCGAAGCTCTAGAAATGAATGTTTCCATCTCTTCAGAG
ATGAACCAGATTATGATGCATCATTATCACAGAAGAAATTCGTGTCTATAGCTTTTAAGGACTTGATTACATCAT
TTTCAAGCCTGATAGTTTTGGAATCACCATTAGAGCTTAAGCACACCTGCCTTCATTTCAACCACCTGTCTTCA
TACCCTGACGAAGTGCACCTTTTAACACTCCTTTGTCCTTGGATTACTTAAGAGTTCCCAGAAATACATTTGCCA
CCAACAGAGTAGCCAAATTTATAAGGAAAA**ATG**ATTCCCAATGGATATTTGATGTTTGAGGATGAAAATTTTATT
GAGTCTTCTGTTGCCAAATTAAATGCCCTGAGGAAAAGTGGCCAGTTCTGTGATGTTCGACTTCAGGTCTGTGGC
CATGAAATGTTAGCACACAGAGCAGTGCTAGCTTGCTGCAGTCCCTATTTATTTGAAATCTTTAATAGTGATAGT
GATCCTCATGGAATTTCTCACGTTAAATTTGATGATCTCAATCCAGAAGCTGTTGAAGTCTTGTTGAATTATGCC
TACACTGCTCAGTTGAAAGCAGATAAGGAATTGGTAAAAGATGTTTATTCTGCAGCAAAAAAGCTGAAGATGGAT
CGAGTAAAGCAGGTTTGTGGTGATTATTTACTGTCTAGAATGGATGTTACCAGCTGCATCTCTTACCGAAATTTT
GCAAGTTGTATGGGAGACTCCCGTTTGTTGAATAAGGTTGATGCTTATATTCAGGAGCATTTGTTACAAATTTCT
GAAGAGGAGGAGTTTCTTAAGCTTCCAAGGCTAAAGTTGGAGGTAATGCTTGAAGATAATGTTTGCTTGCCCAGC
AATGGCAAATTATATACAAAGGTAATCAACTGGGTGCAGCGTAGCATCTGGGAGAATGGAGACAGTCTGGAAGAG
CTGATGGAAGAGGTTCAAACCTTGTACTACTCAGCTGATCACAAGCTGCTTGATGGGAACCTACTAGATGGACAG
GCTGAGGTGTTTGGCAGTGATGATGACCACATTCAGTTTGTGCAGAAAAAGCCACCACGTGAGAATGGCCATAAG
CAGATAAGTAGCAGTTCAACTGGATGTCTCTCTTCTCCAAATGCTACAGTACAAAGCCCTAAGCATGAGTGGAAA
ATCGTTGCTTCAGAAAAGACTTCAAATAACACTTACTTGTGCCTGGCTGTGCTGGATGGTATATTCTGTGTCATT
TTTCTTCATGGGAGAAACAGCCCACAGAGCTCACCAACAAGTACTCCAAAACTAAGTAAGAGTTTAAGCTTTGAG
ATGCAACAAGATGAGCTAATCGAAAAGCCCATGTCTCCTATGCAGTACGCACGATCTGGTCTGGGAACAGCAGAG
ATGAATGGCAAACTCATAGCTGCAGGTGGCTATAACAGAGAGGAATGTCTTCGAACAGTCGAATGCTATAATCCA
CATACAGATCACTGGTCCTTTCTTGCTCCCATGAGAACACCAAGAGCCCGATTTCAAATGGCTGTACTCATGGGC
CAGCTCTATGTGGTAGGTGGATCAAATGGCCACTCAGATGACCTGAGTTGTGGAGAGATGTATGATTCAAACATA
GATGACTGGATTCCTGTTCCAGAATTGAGAACTAACCGTTGTAATGCAGGAGTGTGTGCTCTGAATGGAAAGTTA
TACATCGTTGGTGGCTCTGATCCATATGGTCAAAAAGGACTGAAAAATTGTGATGTATTTGATCCTGTAACAAAG
TTGTGGACAAGCTGTGCCCCTCTTAACATTCGGAGACACCAGTCTGCAGTCTGTGAGCTTGGTGGTTATTTGTAC
ATAATCGGAGGTGCAGAATCTTGGAATTGTCTGAACACAGTAGAACGATACAATCCTGAAAATAATACCTGGACT
TTAATTGCACCCATGAATGTGGCTAGGCGAGGAGCTGGAGTGGCTGTTCTTAATGGAAAACTGTTTGTATGTGGT
GGCTTTGATGGTTCTCATGCCATCAGTTGTGTGGAAATGTATGATCCAACTAGAAATGAATGGAAGATGATGGGA
AATATGACTTCACCAAGGAGCAATGCTGGGATTGCAACTGTAGGGAACACCATTTATGCAGTGGGAGGATTCGAT
GGCAATGAATTTCTGAATACGGTGGAAGTCTATAACCTTGAGTCAAATGAATGGAGCCCCTATACAAAGATTTTC
CAGTTT**TAA**CAAATTTAAGACCCTCTCAAACTAACAGGCTTAGTGATGTAATTATGGTTAGTAGAGGTACACTTG
TGAATAAAGAGGGTGGGTGGGTATAGATGTTGCTAACAGCAACACAAAGCTTTTGCATATTGCATACTATTAAAC
ATGCTGTACATACTTTTTGGGTTTATTTGGAAAGGAATGCAAAGATGAAGGTCTGTTTTGTGTACTTTTAAGACT
TTGGTTATTTTACTTTTTGGAAAAGAATAAACCAAGAATTGATTGGGCACATCATTTCAAGAAGTCCCCTCTCCT
CCACATTTGTTTTGCCAATTTGCACATTAAATGACTCTTCCCTCAAATGTGTACTATGGGGTAAAAGGGGTAGGG
TTTAAAGATGTAGACAGTTGGGTTTTTTAAGGGCCCTTTTTCAATAACTGGAACACTCTATAACAAAGGATACTT
ATTTAAATAGATGACATTGACTATTTTTGTTTTTATTAAAAGGAAGCTTACATGCCTACCAATATTTAATCTTTT
ATGATTGCCTTTTTATAACTTTTTATATTCTCAGCAGAGTGCTTTACCAATTGAAGTAAAATGTGGCAGGCTGGA
GTTATTGAAGCAGAGTGGCAGTCTTCAGTTTGCAGAGTAGGGGTCTGTCTTTTAAACTCTGAGTGCAAACTTCAG
AGTTCTTGCCTTGGCTGCAGTTTTTTTCCTTCAAGAATGCAGTACTAACATTTATTTGAGTGGAGTTACTGAACA
GTAACATAGCTGTGATTTTTGGTATTTGAAACACTGGTTTTAAATATTTTGACTTGTTGAGGGTATGTTTTATAT
AGCAAGACATTATATAGCAGTAAAAAATGGTGTTTTATCTTCTATATAATTCCTGTTTTTATTATTAACAAAACA
GTCCTAAATAGCAGCCCTCAATTGTGAAAAAATTTACTTTAAACTACATTAGGTTGTGAATGCAGGTTTTATCAG
AACTATGTTTTTGTTCAGTTTATCTGTTCATATGGATAAATATTGGTTGGGATGACTTGGTGTCTAATGTGTAGT

FIGURE 108B

GCTACACACCTAACTTATGGGGCCAAAATAGCATGTCCTAATGCTTGCTGCTGATTTAAACACATTAAAGGTACT
TTGCAGG

FIGURE 109

MIPNGYLMFEDENFIESSVAKLNALRKSGQFCDVRLQVCGHEMLAHRAVLACCSPYLFEIFNSDSDPHGISHVKF
DDLNPEAVEVLLNYAYTAQLKADKELVKDVYSAAKKLKMDRVKQVCGDYLLSRMDVTSCISYRNFASCMGDSRLL
NKVDAYIQEHLLQISEEEEFLKLPRLKLEVMLEDNVCLPSNGKLYTKVINWVQRSIWENGDSLEELMEEVQTLYY
SADHKLLDGNLLDGQAEVFGSDDDHIQFVQKKPPRENGHKQISSSSTGCLSSPNATVQSPKHEWKIVASEKTSNN
TYLCLAVLDGIFCVIFLHGRNSPQSSPTSTPKLSKSLSFEMQQDELIEKPMSPMQYARSGLGTAEMNGKLIAAGG
YNREECLRTVECYNPHTDHWSFLAPMRTPRARFQMAVLMGQLYVVGGSNGHSDDLSCGEMYDSNIDDWIPVPELR
TNRCNAGVCALNGKLYIVGGSDPYGQKGLKNCDVFDPVTKLWTSCAPLNIRRHQSAVCELGGYLYIIGGAESWNC
LNTVERYNPENNTWTLIAPMNVARRGAGVAVLNGKLFVCGGFDGSHAISCVEMYDPTRNEWKMMGNMTSPRSNAG
IATVGNTIYAVGGFDGNEFLNTVEVYNLESNEWSPYTKIFQF

FIGURE 110

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GAGTTCCAGCAGTCCGCGAGCTGCCGTCGGCTCCGCGGGGGGGGCGGGCCGGGCACCCCGGGGCGCGGAGGAGCG
CTCCTCGCTTCTCTCCTTCCCCCCTGCCGCACTCCGCCGGACCCTCCCGCCGGCCCGCGCCGCTGCACTCGCCCT
CTCCTCTCGCCCCCCGGCAAACTTTCGGCCCCTCCCCGCCCCTCGCCCGTTATTCGTCGTGGCTCAAGCCCGGCC
ACGCCGCCCCAAGGGCTCCTCCCGACCTCCCGGCCTGCCGCTCCGGCCACTGCGGGATCCAGAAAC**ATG**TCGACC
ACACTTCTGTCCGCCTTCTACGATGTCGACTTCTTGTGCAAGACAGAGAAATCCCTGGCCAACCTCAACCTGAAC
AACATGCTGGACAAGAAGGCGGTGGGGACGCCTGTGGCCGCCGCCCCCAGCTCGGGCTTCGCGCCGGGATTCCTC
CGACGGCACTCGGCCAGCAACCTGCATGCACTCGCCCACCCCGCGCCCAGCCCCGGCAGCTGCTCGCCCAAGTTC
CCGGGCGCCGCTAACGGCAGCAGCTGCGGCAGCGCGGCGGCCGGCGGTCCGACCTCCTACGGCACCCTTAAGGAG
CCGTCGGGGGGCGGCGGCACAGCCCTGCTCAACAAGGAGAACAAATTCCGGGACCGCTCGTTTAGCGAGAACGGC
GATCGCAGCCAGCACCTCCTGCACCTGCAGCAGCAGCAGAAGGGGGGCGGCGGCTCCCAGATCAACTCCACGCGC
TACAAGACCGAGCTGTGCCGGCCCTTCGAGGAGAGCGGCACGTGCAAGTACGGCGAAAAGTGCCAGTTCGCGCAT
GGCTTCCACGAGCTGCGCAGCCTGACTCGCCATCCGAAGTACAAGACCGAGCTGTGCCGCACCTTTCATACCATC
GGCTTCTGCCCCTATGGGCCGCGCTGCCACTTCATCCACAACGCGGACGAGCGGCGGCCCGCGCCGTCGGGGGGC
GCCTCCGGGGACCTGCGTGCCTTTGGCACGCGCGATGCGTTGCACCTGGGCTTCCCGCGGGAGCCGCGGCCCAAG
TTGCACCACAGCCTCAGCTTCTCGGGCTTCCCGTCGGGCCACCATCAGCCCCCGGGCGGCCTCGAGTCGCCGCTG
CTGCTCGACAGCCCCACGTCGCGCACGCCGCCGCCGCCCTCCTGCTCTTCGGCCTCGTCCTGCTCCTCCTCCGCC
TCCTCCTGTTCCTCGGCCTCCGCGGCCTCCACGCCCTCGGGCGCCCCGACATGCTGCGCCTCCGCGGCGGCCGCG
GCTGCGGCCGCTCTGCTGTACGGCACCGGGGGCGCCGAGGACCTGCTGGCGCCGGGGGCCCCGTGCGCGGCCTGC
TCGTCGGCCTCGTGCGCCAACAACGCCTTCGCCTTCGGTCCGGAGCTCAGCAGCCTCATCACGCCGCTCGCCATC
CAGACCCACAACTTTGCCGCCGTGGCCGCCGCCGCCTACTACCGCAGTCAGCAGCAGCAGCAGCAGGGCCTG
GCGCCCCCGCGCAGCCGCCGGCGCCGCCCAGCGCGACCCTCCCCGCCGGGGCCGCCGCACCTCCCTCGCCGCCC
TTCAGCTTCCAGCTGCCGCGCCGCCTGTCCGACTCGCCCGTGTTCGACGCGCCCCCCAGCCCCCCGGACTCGCTG
TCGGACCGCGACAGCTACCTAAGCGGCTCCCTGAGCTCCGGCAGCCTCAGCGGCTCTGAGTCTCCCAGCCTCGAC
CCTGGCCGCCGCCTGCCAATCTTCAGCCGCCTCTCCATCTCCGACGAC**TGA**GGCAAGAGGGCGCCAGTGAGGAGG
AAGGGAAGGCGGTTCAGAGATGTTGGAGGACACCCCTCGCCATCTCGCCCTTGCTGGGGGCACGGGAGTGGGGGG
GGTGACATGGGCCCTAGGCAGACTGCAAGCCCGACCGAGCACTTGGACTCGAACTCTGTGCCGGGAGGGGCCCCC
ACCCCTCCTTTTTCGGTTTCCTCTTGTCTTTTTTTTTTATTTTTATTACGAAGTTTCATTCTTTTTGAGCAAAA
AAGTCGAACTTTTTCTGTTGAACAAAATATTCACAACAGGGCAGTTGTGATACGAATAGAACAAAAAAAAAAAAA
AAACACTTAAACTTTGTTAGGACTCCGATGAGTTTGGGACTTCAGGAAAAATCAACCCAGCACCAGCAGCTACCA
ACCACCATTCCATCTCTTCACTTGAACAGCATTAGTTAAGTCCAGATGTGGGAACCCTTCTCTTGGAAGAAGTTC
CTAATTGTGTCTCAGACCGGTGTAAACAAACCAGCCAGCCGCCACCTTGCTAAACCTATAAGCTTTTTAAAAATCC
AATATATTCTGCCAAGAATATGCCTTGATAGTTAGCCCTCAGCCCATAGGTGTTTTTTGTTTTTTAACAGAATTA
TATATGTCTGGGGGGTGAAAAAACCCTTGCATTCCAAAGGTCCATACTGGTTACTTGGTTTCATTGCCACCACTTA
GTGGATGTTCAGTTTAGAACCATTTTGTCTGCTCCCTCTGGAAGCCTTGCGCA
```

FIGURE 111

MSTTLLSAFYDVDFLCKTEKSLANLNLNNMLDKKAVGTPVAAAPSSGFAPGFLRRHSASNLHALAHPAPSPGSCS
PKFPGAANGSSCGSAAAGGPTSYGTLKEPSGGGGTALLNKENKFRDRSFSENGDRSQHLLHLQQQQKGGGGSQIN
STRYKTELCRPFEESGTCKYGEKCQFAHGFHELRSLTRHPKYKTELCRTFHTIGFCPYGPRCHFIHNADERRPAP
SGGASGDLRAFGTRDALHLGFPREPRPKLHHSLSFSGFPSGHHQPPGGLESPLLLDSPTSRTPPPPSCSSASSCS
SSASSCSSASAASTPSGAPTCCASAAAAAAAALLYGTGGAEDLLAPGAPCAACSSASCANNAFAFGPELSSLITP
LAIQTHNFAAVAAAAYYRSQQQQQQQGLAPPAQPPAPPSATLPAGAAAPPSPPFSFQLPRRLSDSPVFDAPPSPP
DSLSDRDSYLSGSLSSGSLSGSESPSLDPGRRLPIFSRLSISDD

FIGURE 112A

CAGATTTACGAGGTTCTGTTCTAGTGCCAAAGGCTCTTGGTAGTAAATAGTGAGCAAAATAGATACCTGTCTCCT
GATGGATCTTGCCAGCCCCNTCCNTATTTTTTNTTAAGTTATTTATTAAAACCACACACACCTTGCAAAGAAAAA
GGGAAACTGGCAGTCTCTGTAGAGGAAGCCGGTGGCATCGCTCAGAGCCACAAACTGTATTTCTAAACAGCCCTT
TCCCTGGTTCCCTCTCTCCTGCCCCACTTTTTTTAAAATCCAGACTGTAAAAAACACATCTACTGACACTCACTT
TACTTTAAAAAAAGAAGAGAAAAAGTAAAGCGTTACAAGACTTTCCTCCTGGAAACTATAAACTGAAAAAAAAAT
CCATAAAAGATTAAATCCTGGCGGGTTGTGGGGTGGCGGGGGCCGGCGGGGAGGGGGCGCGGAGTGGAGATTGGC
TCTCTGAGGTGGTCAGGGGCCCTGTGACAGCTTGGGACTTTCAGCACCTGGTTTGGGGTCATTTATCTGCTCAAC
TGTCAGGACCCCCCACCCCCAAACCCCAGCCACCAACACAACCATCGTAGAAGGGAACACAACACAGAGGGTCTT
TTTTCATTTTTTTAAAAAATCGGTTTGGTTGTGTTTTTGTTTTCCATGGGGGAGCTTTAAAACTCATTATTGCAA
CACTAGTTCCATTTTTCGCCAGGGTTCCAATAACACGGCATCATAAAGGCAACGCAACCCACAGTTCTCAAGACA
TTTACCACGGTCACTACATCCGGCAGCGGGGTGGCCCCTAGCTCCTGCTGCCCCCCCGCCCTTTCTCCCCGCCCG
CCCCCGGAGCTCAGCCGATTTCTGAGGCTCCAACTCTACCCACTCCCTCCCCGGGCCGCCGCCGCCGCGCCTTCC
CCCATTCTTACTCCCTCGAGGAGAGCCACAGGTTGCAAATCCAACCAACCTCGCAATCTATTTTTGCAAAATCAC
TCACAAAGATCTCCCTTTCGCGCCCGCGCCCGCTCCTCCCGCGCCGGGTCCCCTCAGCCACGGCCACAAAGTGCC
CTTCTCTCCTCCTGAGTCTTGCACATAAGGAACGCGGGCTGGGGCTCTGTTCGTCTTTCTCCTCGCCCAAGGTAA
GGACCTCGGGAATCTGAAGCCTGGCGTCCACTACGCTCAGGCCCGCAGTTCCCTTTTTACAGAGCTTGCACCATG
GGAAAAAATAAAATAAAATTTAGGAAAGGGAGGCAACAGCCATTGGGAGCCAACACAGAGTCACGCAGCGCCCAA
AATACAAACACCGCAGCGGCCAGAAATCCCGCCACCTTTCTCGTTCTCCCAGGCTGTCCTGTCGAGGTTCCCTGA
GTCCCCCCGCACACTGAAAGGCATCGCAGGTGCAGTGCGCACCCCTTTCCCACCCACCCCAAGAAGCCCTGTCCC
GCCATCAGTCTCTCTCCTCGGGATGAGCAGGGAGAGCGCGCGGAGGTTCCCGACTCCCTCGACTACAACCAAGAA
AGAATAATTTTCAAAGTGTTCAACATCCCCGCCCCCAAGCTCCCCAAAACACAGGGGCAGGGAACACCAAAACAC
TCGGCTCTCGTTAGGAAGATCACGGCTCTGAAAGGAAATAGTAGACACGATACTTCATCTCATCTGGATTTATGA
CCAAAAAAACAAAAACAAAAACCCAAAGAGTTCGCTTGCATTTTTTCCTTCCAAATCTCGGTTCGGCTCGAAGGC
AGGGAATCTAAAAGACCGAGGCC**ATG**GAAGAGAGCCAGCGGGGCGAGCGAGCGGGCAGCCTCCCTTTTTGCCTC
CCGGAGTCACCCGTTATTCGTCGTGGCTCAAGCCCGGCCACGCCGCCCCAAGGGCTCCTCCCGACCTCCCGGCCT
GCCGCTCCGGCCACTGCGGGATCCAGAAACATGTCGACCACACTTCTGTCCGCCTTCTACGATGTCGACTTCTTG
TGCAAGACAGAGAAATCCCTGGCCAACCTCAACCTGAACAACATGCTGGACAAGAAGGCGGTGGGGACGCCTGTG
GCCGCCGCCCCCAGCTCGGGCTTCGCGCCGGGATTCCTCCGACGGCACTCGGCCAGCAACCTGCATGCACTCGCC
CACCCCGCGCCCAGCCCCGGCAGCTGCTCGCCCAAGTTCCCGGGCGCCGCTAACGGCAGCAGCTGCGGCAGCGCG
GCGGCCGGCGGTCCGACCTCCTACGGCACCCTTAAGGAGCCGTCGGGGGGCGGCGGCACAGCCCTGCTCAACAAG
GAGAACAAATTCCGGGACCGCTCGTTTAGCGAGAACGGCGATCGCAGCCAGCACCTCCTGCACCTGCAGCAGCAG
CAGAAGGGGGGCGGCGGCTCCCAGATCAACTCCACGCGCTACAAGACCGAGCTGTGCCGGCCCTTCGAGGAGAGC
GGCACGTGCAAGTACGGCGAAAAGTGCCAGTTCGCGCATGGCTTCCACGAGCTGCGCAGCCTGACTCGCCATCCG
AAGTACAAGACCGAGCTGTGCCGCACCTTTCATACCATCGGCTTCTGCCCCTATGGGCCGCGCTGCCACTTCATC
CACAACGCGGACGAGCGGCGGCCCGCGCCGTCGGGGGGCGCCTCCGGGACCTGCGTGCCTTTGGCACGCGCGAT
GCGTTGCACCTGGGCTTCCCGCGGGAGCCGCGGCCCAAGTTGCACCACAGCCTCAGCTTCTCGGGCTTCCCGTCG
GGCCACCATCAGCCCCCGGGCGGCCTCGAGTCGCCGCTGCTGCTCGACAGCCCCACGTCGCGCACGCCGCCGCCG
CCCTCCTGCTCTTCGGCCTCGTCCTGCTCCTCCTCCGCCTCCTCCTGTTCCTCGGCCTCCGCGGCCTCCACGCCC
TCGGGCGCCCCGACATGCTGCGCCTCCGCGGCGGCCGCGGCTGCGGCCGCTCTGCTGTACGGCACCGGGGGCGCC
GAGGACCTGCTGGCGCCGGGGGCCCCGTGCGCGGCCTGCTCGTCGGCCTCGTGCGCCAACAACGCCTTCGCCTTC
GGTCCGGAGCTCAGCAGCCTCATCACGCCGCTCGCCATCCAGACCCACAACTTTGCCGCCGTGGCCGCCGCCGCC
TACTACCGCAGTCAGCAGCAGCAGCAGCAGGGCCTGGCGCCCCCGCGCAGCCGCCGGCGCCGCCCAGCGCG
ACCCTCCCCGCCGGGGCCGCCGCACCTCCCTCGCCGCCCTTCAGCTTCCAGCTGCCGCGCCGCCTGTCCGACTCG
CCCGTGTTCGACGCGCCCCCCAGCCCCCCGGACTCGCTGTCGGACCGCGACAGCTACCTAAGCGGCTCCCTGAGC
TCCGGCAGCCTCAGCGGCTCTGAGTCTCCCAGCCTCGACCCTGGCCGCCGCCTGCCAATCTTCAGCCGCCTCTCC
ATCTCCGACGAC**TGA**GGCAAGAGGGCGCCAGTGAGGAGGAAGGGAAGGCGGTTCAGAGATGTTGGAGGACACCCC
TCGCCATCTCGCCCTTGCTGGGGGCACGGGAGTGGGGGGGGTGACATGGGCCCTAGGCAGACTGCAAGCCCGACC
GAGCACTTGGACTCGAACTCTGTGCCGGGAGGGGCCCCCACCCCTCCTTTTTCGGTTTCCTCTTGTCTCTTTTTT

FIGURE 112B

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TTTATTTTTATTACGAAGTTTCATTCTTTTTGAGCAAAAAAGTCGAACTTTTTCTGTTGAACAAAATATTCACAA
CAGGGCAGTTGTGATACGAATAGAACAAAAAAGAAAAAAAAAACACTTAAACTTTGTTAGGACTCCGATGAGTTT
GGGACTTCAGGAAAAATCAACCCAGCACCAGCAGCTACCAACCACCATTCCATCTCTTCACTTGAACAGCATTAG
TTAAGTCCAGATGTGGGAACCCTTCTCTTGGAAGAAGTTCCTAATTGTGTCTCAGACCGGTGTAAACAAACCAGC
CAGCCGCCACCTTGCTAAACCTATAAGCTTTTTAAAATCCAATATATTCTGCCAAGAATATGCCTTGATAGTTAG
CCCTCAGCCCATAGGTGTTTTTTGTTTTTTAACAGAATTATATATGTCTGGGGGTGAAAAAACCCTTGCATTCCA
AAGGTCCATACTGGTTACTTGGTTTCATTGCCACCACTTAGTGGATGTTCAGTTTAGAACCATTTTGTCTGCTCC
CTCTGGAAGCCTTGCGCAGAGCTTACTTTGTAATTGTTGGAGAATAACTGCTGAATTTTTAGCTGTTTTGAGTTG
ATTCGCACCACTGCACCACAACTCAATATGAAAACTATTTAACTTATTTATTATCTTGTGAAAAGTATACAATGA
AAATTTTGTTCATACTGTATTTATCAAGTATGATGAAAAGCAATAGATATATATTCTTTTATTATGTTAAATTAT
GATTGCCATTATTAATCGGCAAAATGTGGAGTGTATGTTCTTTTCACAGTAATATATGCCTTTTGTAACTTCACT
TGGTTATTTTATTGTAAATGAGTACAAAATTCTTAATTTAAGAGATTGTATGTAATATTTATTTCATTAATTTCT
TTCCTTGTTTACGTAAATTTTGAAAGATTGCATGATTTCTTGACAGAAATCGATCTTGATGCTGTGGAAGTAGTT
TGAGGAACATCCTATGAGTTTTCTTAGAATGTATAAAGGTTGTAGCCCATCCAACTTCAAAGAAAAAAATGACCA
CATACTTTGCAATCAGGCTGAAATGTGGCATGCTTTTCTAATTCCAACTTTATAAACTAGCAAAAAAGTGTTTGC
TTATTCCACCAGTTCTACTGTGACATACTCGAGTATAAAGACATGTAGCAATAACGGGGAGTGGGGGGGGAGTCT
CACAGTGCCTTTGGAAGGGCCCGAACTTGCCTTAAATCTTCCTCAACCAAATAAGTATTTTATTAGTGCTTGAGA
GAATCTGAATGTAGGATGGGTTCAACTGCACAAAAGGAAAGATTTTTACCACTTTTTTTATATAGATATAAAGT
GAAGCAACCGCCTTAGTGCTGAAATATGTAGTACATGAATATGCCTTGTTAATTACAGAAAATTCCAAAACTTG
TACTATTTTTTTTTTCCATGTAGAAAGGCAGGAATGTCTCCTAAGCTTTCCTGGACAGCAGATGAATGAGCGGTA
GCTTTAGTTTGTACGTAGGTACAGTTGGAGCACTATATGTACTCTCTGGACTACTTTGGACAGAAGTAGGTTTTT
GAATGTAACAAGATAAGTCAACTTGAGTTGTAATATATTTTGGGGAATCAGCTCACTACAAATTGTGACTGTAAA
CATTGTACTGTAAATGTTTTGTAGTTTTCCCCCAATAAAATTTTTGGGAAAAAAAGGTATTAACATGTAAGAGCT
TTCTTTTTAAACAGGAATGTCTTAGCTTTCTAGCTTCCCAGCTAACCATGTCTGCCATTCCCCAGGTCTTGGCAT
GGTGGGGGAGGACTTGGAGAGCTGGCAGAGCCAGAGTTCAGAAGAGCCTGCGTCCTCTCAGCCCGTATATATTTT
ATAAGCAAGTTCTTCTAATGAAAGAAAGTAATTATTTGGACTGTCAAGGGCATTAGTT
```

FIGURE 113

MEESQRGERAGSLPFCLPESPVIRRGSSPATPPQGLLPTSRPAAPATAGSRNMSTTLLSAFYDVDFLCKTEKSLA
NLNLNNMLDKKAVGTPVAAAPSSGFAPGFLRRHSASNLHALAHPAPSPGSCSPKFPGAANGSSCGSAAAGGPTSY
GTLKEPSGGGGTALLNKENKFRDRSFSENGDRSQHLLHLQQQQKGGGGSQINSTRYKTELCRPFEESGTCKYGEK
CQFAHGFHELRSLTRHPKYKTELCRTFHTIGFCPYGPRCHFIHNADERRPAPSGGASGDLRAFGTRDALHLGFPR
EPRPKLHHSLSFSGFPSGHHQPPGGLESPLLLDSPTSRTPPPPSCSSASSCSSSASSCSSASAASTPSGAPTCCA
SAAAAAAAALLYGTGGAEDLLAPGAPCAACSSASCANNAFAFGPELSSLITPLAIQTHNFAAVAAAAYYRSQQQQ
QQQGLAPPAQPPAPPSATLPAGAAAPPSPPFSFQLPRRLSDSPVFDAPPSPPDSLSDRDSYLSGSLSSGSLSGSE
SPSLDPGRRLPIFSRLSISDD

FIGURE 114

GAGTTCCAGCAGTCCGCGAGCTGCCGTCGGCTCCGCGGGGGGGGCGGGCCGGGCACCCCGGGGCGCGGAGGAGCG
CTCCTCGCTTCTCTCCTTCCCCCCTGCCGCACTCCGCCGGACCCTCCCGCCGGCCCGCGCCGCTGCACTCGCCCT
CTCCTCTCGCCCCCCGGCAAACTTTCGGCCCCTCCCCGCCCCTCGCCCGTTATTCGTCGTGGCTCAAGCCCGGCC
ACGCCGCCCCAAGGGCTCCTCCCGACCTCCCGGCCTGCCGCTCCGGCCACTGCGGGATCCAGAAAC**ATG**TCGACC
ACACTTCTGTCCGCCTTCTACGATGTCGACTTCTTGTGCAAGACAGAGAAATCCCTGGCCAACCTCAACCTGAAC
AACATGCTGGACAAGAAGGCGGTGGGGACGCCTGTGGCCGCCGCCCCCAGCTCGGGCTTCGCGCCGGGATTCCTC
CGACGGCACTCGGCCAGCAACCTGCATGCACTCGCCCACCCCGCGCCCAGCCCCGGCAGCTGCTCGCCCAAGTTC
CCGGGCGCCGCTAACGGCAGCAGCTGCGGCAGCGCGGCGGCCGGCGGTCCGACCTCCTACGGCACCCTTAAGGAG
CCGTCGGGGGGCGGCGGCACAGCCCTGCTCAACAAGGAGAACAAATTCCGGGACCGCTCGTTTAGCGAGAACGGC
GATCGCAGCCAGCACCTCCTGCACCTGCAGCAGCAGCAGAAGGGGGGCGGCGGCTCCCAGATCAACTCCACGCGC
TACAAGACCGAGCTGTGCCGGCCCTTCGAGGAGAGCGGCACGTGCAAGTACGGCGAAAAGTGCCAGTTCGCGCAT
GGCTTCCACGAGCTGCGCAGCCTGACTCGCCATCCGAAGTACAAGACCGAGCTGTGCCGCACCTTTCATACCATC
GGCTTCTGCCCCTATGGGCCGCGCTGCCACTTCATCCACAACGCGGACGAGCGGCGGCCCGCGCCGTCGGGGGGC
GCCTCCGGGGACCTGCGTGCCTTTGGCACGCGCGATGCGTTGCACCTGGGCTTCCCGCGGGAGCCGCGGCCCAAG
TTGCACCACAGCCTCAGCTTCTCGGGCTTCCCGTCGGGCCACCATCAGCCCCCGGGCGGCCTCGAGTCGCCGCTG
CTGCTCGACAGCCCCACGTCGCGCACGCCGCCGCCGCCCTCCTGCTCTTCGGCCTCGTCCTGCTCCTCCTCCGCC
TCCTCCTGTTCCTCGGCCTCCGCGGCCTCCACGCCCTCGGGCGCCCCGACATGCTGCGCCTCCGCGGCGGCCGCG
GCTGCGGCCGCTCTGCTGTACGGCACCGGGGGCGCCGAGGACCTGCTGGCGCCGGGGGGCCCCGTGCGCGGCCTGC
TCGTCGGCCTCGTGCGCCAACAACGCCTTCGCCTTCGGTCCGGAGCTCAGCAGCCTCATCACGCCGCTCGCCATC
CAGACCCACAACTTTGCCGCCGTGGCCGCCGCCGCCTACTACCGCAGTCAGCAGCAGCAGCAGCAGCAGGGCCTG
GCGCCCCCGCGCAGCCGCCGGCGCCGCCCAGCGCGACCCTCCCCGCCGGGGCCGCCGCACCTCCCTCGCCGCCC
TTCAGCTTCCAGCTGCCGCGCCGCCTGTCCGACTCGCCCGTGTTCGACGCGCCCCCCAGCCCCCCGGACTCGCTG
TCGGACCGCGACAGCTACCTAAGCGGCTCCCTGAGCTCCGGCAGCCTCAGCGGCTCTGAGTCTCCCAGCCTCGAC
CCTGGCCGCCGCCTGCCAATCTTCAGCCGCCTCTCCATCTCCGACGAC**TGA**GGCAAGAGGGCGCCAGTGAGGAGG
AAGGGAAGGCGGTTCAGAGATGTTGGAGGACACCCCTCGCCATCTCGCCCTTGCTGGGGGCACGGGAGTGGGGGG
GGTGACATGGGCCCTAGGCAGACTGCAAGCCCGACCGAGCACTTGGACTCGAACTCTGTGCCGGGAGGGGCCCCC
ACCCCTCCTTTTTCGGTTTCCTCTTGTCTTTTTTTTTTATTTTTATTACGAAGTTTCATTCTTTTTGAGCAAAA
AAGTCGAACTTTTTCTGTTGAACAAAATATTCACAACAGGGCAGTTGTGATACGAATAGAACAAAAAAAAAAAAA
AAACACTTAAACTTTGTTAGGACTCCGATGAGTTTGGGACTTCAGGAAAAATCAACCCAGCACCAGCAGCTACCA
ACCACCATTCCATCTCTTCACTTGAACAGCATTAGTTAAGTCCAGATGTGGGAACCCTTCTCTTGGAAGAAGTTC
CTAATTGTGTCTCAGACCGGTGTAAACAAACCAGCCAGCCGCCACCTTGCTAAACCTATAAGCTTTTTAAAATCC
AATATATTCTGCCAAGAATATGCCTTGATAGTTAGCCCTCAGCCCATAGGTGTTTTTTGTTTTTTAACAGAATTA
TATATGTCTGGGGGTGAAAAAACCCTTGCATTCCAAAGGTCCATACTGGTTACTTGGTTTCATTGCCACCACTTA
GTGGATGTTCAGTTTAGAACCATTTTGTCTGCTCCCTCTGGAAGCCTTGCGCA

FIGURE 115

MSTTLLSAFYDVDFLCKTEKSLANLNLNNMLDKKAVGTPVAAAPSSGFAPGFLRRHSASNLHALAHPAPSPGSCS
PKFPGAANGSSCGSAAAGGPTSYGTLKEPSGGGGTALLNKENKFRDRSFSENGDRSQHLLHLQQQQKGGGGSQIN
STRYKTELCRPFEESGTCKYGEKCQFAHGFHELRSLTRHPKYKTELCRTFHTIGFCPYGPRCHFIHNADERRPAP
SGGASGDLRAFGTRDALHLGFPREPRPKLHHSLSFSGFPSGHHQPPGGLESPLLLDSPTSRTPPPPSCSSASSCS
SSASSCSSASAASTPSGAPTCCASAAAAAAAALLYGTGGAEDLLAPGAPCAACSSASCANNAFAFGPELSSLITP
LAIQTHNFAAVAAAAYYRSQQQQQQQQGLAPPAQPPAPPSATLPAGAAAPPSPPFSFQLPRRLSDSPVFDAPPSPP
DSLSDRDSYLSGSLSSGSLSGSESPSLDPGRRLPIFSRLSISDD

FIGURE 116

AAAAGAAAAAAAAAAAGATTTTTTTCTTCTCTTAATCGGAATCGTGATGGTGTTGGATTATTTCAATGGTGGGGTT
AATATAGCATGTTATCCTGTCTATCTTTTAAAGATTTCTGTATAAGACTGTTGAGCAGTTTTTAAAATAGTGTAG
GATAATATAAAAAGCAGATAGATGGCGCTATGTTTGATTCCTACAACGAAATTATCACCAGCTTTTTTTCATTCT
TAACTCTTTAAAGGATTCAAACGCAACTCAAATCTGTGCTGGACTTTAAAAAAACAATTCAGGACCAAATTTTTT
CTCAGTGTGTGTGTTTATTCCTTATAGGTGTAA**ATG**AGAAGACGTGTTTTTTTCCTTCACCGATGCTCCATCCTC
GTATTTCTTTTTCCTTGTAAATGTAATCAGATGCCATTTTATATGTGGACGTATTTATACTGGCCAAACATATTT
TTTCTTTTGTCCCTTTTTTTCTTTCCTTTCTTTTTACTTCCTTTATTTCTTATTCCTCCTTTCCNTTTTTNNNNN
NNNNNNNNNNNNNNNNNNNNNNNNNNNGG**TAG**TTGTTGTTACCCACGCCATTTTACGTCTCCTTCACTGAAGGG
CTAGAGTTTTAACTTTTAATTTTTTATATTTAAATGTAGACTTTTGACACTTTTAAAAAACAAAAAAAGACAAGA
GAGATGAAAACGTTTGATTATTTTCTCAGTGTATTTTTGTAAAAAATATATAAAGGGGGTGTTAATCGGTGTAAA
TCGCTGTTTGGATTTCCTGATTTTATAACAGGGCGGCTGGTTAATATCTCACACAGTTAAAAAATCAGCCCCTA
ATTTCTCCATGTTTACACTTCAATCTGCAGGCTTCTTAAAGTGACAGTATCCCTTAACCTGCCACCAGTGTCCAC
CCTCCGGCCCCCGTCTTGTAAAAAGGGGAGGAGAATTAGCCAAACACTGTAAGCTTTTAAGAAAAACAAAGTTTT
AAACGAAATACTGCTCTGTCCAGAGGCTTTAAAACTGGTGCAATTACAGCAAAAAGGGATTCTGTAGCTTTAACT
TGTAAACCACATCTTTTTTGCACTTTTTTTATAAGCAAAAACGTGCCGTTTAAACCACTGGATCTATCTAAATGC
CGATTGAGTTCGCGACACTATGTACTGCGTTTTTCATTCTTGTATTTGACTATTTAATCCTTTCTACTTGTCGC
TAAATATAATTGTTTTAGTCTTATGGCATGATGATAGCATATGTGTTCAGGTTTATAGCTGTTGTGTTTAAAAAT
TGAAAAAAGTGGAAAACATCTTTGTACATTTAAGTCTGTATTATAATAAGCAAAAGATTGTGTGTATGTATGTT
TAATATAACATGACAGGCACTAGGACGTCTGCCTTTTTAAGGCAGTTCCGTTAAGGGTTTTTGTTTTTAAACTTT
TTTTTGCCATCCATCCTGTGCAATATGCCGTGTAGAATATTTGTCTTAAAATTCAAGGCCACAAAAACAATGTTT
GGGGGAAAAAAAGAAAAAATCATGCCAGCTAATCATGTCAAGTTCACTGCCTGTCAGATTGTTGATATATACCT
TCTGTAAATAACTTTTTTTGAGAAGGAAATAAAATCAGCTGGAACTGAACCCTAAAAAAAATCTATGTCGGGTGC
GGAGAAAGAGGTAATGAAATGGCA

FIGURE 117

MRRRVFFLHRCSILVFLFPCKCNQMPFYMWTYLYWPNIFFLLSLFFFPFFLLPLFLIPPFXFXXXXXXXXXXXX

FIGURE 118

GGGCGCGCCAGAGACGCAGCCGCGCTCCCACCACCCACACCCACCGCGCCCTCGTTCGCCTCTTCTCCGGGAGCC
AGTCCGCGCCACCGCCGCCGCCCAGGCCATCGCCACCCTCCGCAGCC**ATG**TCCACCAGGTCCGTGTCCTCGTCCT
CCTACCGCAGGATGTTCGGCGGCCCGGGCACCGCGAGCCGGCCGAGCTCCAGCCGGAGCTACGTGACTACGTCCA
CCCGCACCTACAGCCTGGGCAGCGCGCTGCGCCCCAGCACCAGCCGCAGCCTCTACGCCTCGTCCCCGGGCGGCG
TGTATGCCACGCGCTCCTCTGCCGTGCGCCTGCGGAGCAGCGTGCCCGGGGTGCGGCTCCTGCAGGACTCGGTGG
ACTTCTCGCTGGCCGACGCCATCAACACCGAGTTCAAGAACACCCGCACCAACGAGAAGGTGGAGCTGCAGGAGC
TGAATGACCGCTTCGCCAACTACATCGACAAGGTGCGCTTCCTGGAGCAGCAGAATAAGATCCTGCTGGCCGAGC
TCGAGCAGCTCAAGGGCCAAGGCAAGTCGCGCCTAGGGGACCTCTACGAGGAGGAGATGCGGGAGCTGCGCCGGC
AGGTGGACCAGCTAACCAACGACAAAGCCCGCGTCGAGGTGGAGCGCGACAACCTGGCCGAGGACATCATGCGCC
TCCGGGAGAAATTGCAGGAGGAGATGCTTCAGAGAGAGGAAGCCGAAAACACCCTGCAATCTTTCAGACAGGATG
TTGACAATGCGTCTCTGGCACGTCTTGACCTTGAACGCAAAGTGGAATCTTTGCAAGAAGAGATTGCCTTTTTGA
AGAAACTCCACGAAGAGGAAATCCAGGAGCTGCAGGCTCAGATTCAGGAACAGCATGTCCAAATCGATGTGGATG
TTTCCAAGCCTGACCTCACGGCTGCCCTGCGTGACGTACGTCAGCAATATGAAAGTGTGGCTGCCAAGAACCTGC
AGGAGGCAGAAGAATGGTACAAATCCAAGTTTGCTGACCTCTCTGAGGCTGCCAACCGGAACAATGACGCCCTGC
GCCAGGCAAAGCAGGAGTCCACTGAGTACCGGAGACAGGTGCAGTCCCTCACCTGTGAAGTGGATGCCCTTAAAG
GAACCAATGAGTCCCTGGAACGCCAGATGCGTGAAATGGAAGAGAACTTTGCCGTTGAAGCTGCTAACTACCAAG
ACACTATTGGCCGCCTGCAGGATGAGATTCAGAATATGAAGGAGGAAATGGCTCGTCACCTTCGTGAATACCAAG
ACCTGCTCAATGTTAAGATGGCCCTTGACATTGAGATTGCCACCTACAGGAAGCTGCTGGAAGGCGAGGAGAGCA
GGATTTCTCTGCCTCTTCCAAACTTTTCCTCCCTGAACCTGAGGGAAACTAATCTGGATTCACTCCCTCTGGTTG
ATACCCACTCAAAAAGGACATTCCTGATTAAGACGGTTGAAACTAGAGATGGACAGGTTATCAACGAAACTTCTC
AGCATCACGATGACCTTGAA**TAA**AAATTGCACACACTCAGTGGCAGGCGATATATTACCCAGGCAAGAATAAAAA
AGAAATCCCATATCTTAAAGAAACAGCTTTCAAGTGCCTTTCTGCAGTTTTTCAGGAGCGCAAGATAGATTTGGA
ATAGGAATAAGCTCTAGTTCTTAACAACCGACACTCCTACAAGATTTAGAAAAAAGTTTACAACATAATCTAGTT
TACAGAAAAATCTTGTGCTAGAATACTTTTTAAAAGGTATTTTGAATACCATTAAAACTGCTTTTTTTTTTCCAG
CAAGTATCCAACCAACTTGGTTCTGCTTCAATAAATCTTTGGAAAACTCCA

FIGURE 119

MSTRSVSSSSYRRMFGGPGTASRPSSSRSYVTTSTRTYSLGSALRPSTSRSLYASSPGGVYATRSSAVRLRSSVP
GVRLLQDSVDFSLADAINTEFKNTRTNEKVELQELNDRFANYIDKVRFLEQQNKILLAELEQLKGQGKSRLGDLY
EEEMRELRRQVDQLTNDKARVEVERDNLAEDIMRLREKLQEEMLQREEAENTLQSFRQDVDNASLARLDLERKVE
SLQEEIAFLKKLHEEEIQELQAQIQEQHVQIDVDVSKPDLTAALRDVRQQYESVAAKNLQEAEEWYKSKFADLSE
AANRNNDALRQAKQESTEYRRQVQSLTCEVDALKGTNESLERQMREMEENFAVEAANYQDTIGRLQDEIQNMKEE
MARHLREYQDLLNVKMALDIEIATYRKLLEGEESRISLPLPNFSSLNLRETNLDSLPLVDTHSKRTFLIKTVETR
DGQVINETSQHHDDLE

FIGURE 120

TGCCTGCTGAGGGTGGAGACCCACGAGCCGAGGCCTCCTGCAGTGTTCTGCACAGCAAACCGCACGCT**ATG**GCTG
ACAGCCGGGATCCCGCCAGCGACCAGATGCAGCACTGGAAGGAGCAGCGGGCCGCGCAGAAAGCTGATGTCCTGA
CCACTGGAGCTGGTAACCCAGTAGGAGACAAACTTAATGTTATTACAGTAGGGCCCCGTGGGCCCCTTCTTGTTC
AGGATGTGGTTTTCACTGATGAAATGGCTCATTTTGACCGAGAGAGAATTCCTGAGAGAGTTGTGCATGCTAAAG
GAGCAGGGGCCTTTGGCTACTTTGAGGTCACACATGACATTACCAAATACTCCAAGGCAAAGGTATTTGAGCATA
TTGGAAAGAAGACTCCCATCGCAGTTCGGTTCTCCACTGTTGCTGGAGAATCGGGTTCAGCTGACACAGTTCGGG
ACCCTCGTGGGTTTGCAGTGAAATTTTACACAGAAGATGGTAACTGGGATCTCGTTGGAAATAACACCCCCATTT
TCTTCATCAGGGATCCCATATTGTTTCCATCTTTTATCCACAGCCAAAAGAGAAATCCTCAGACACATCTGAAGG
ATCCGGACATGGTCTGGGACTTCTGGAGCCTACGTCCTGAGTCTCTGCATCAGGTTTCTTTCTTGTTCAGTGATC
GGGGGATTCCAGATGGACATCGCCACATGAATGGATATGGATCACATACTTTCAAGCTGGTTAATGCAAATGGGG
AGGCAGTTTATTGCAAATTCCATTATAAGACTGACCAGGGCATCAAAAACCTTTCTGTTGAAGATGCGGCGAGAC
TTTCCCAGGAAGATCCTGACTATGGCATCCGGGATCTTTTTAACGCCATTGCCACAGGAAAGTACCCCTCCTGGA
CTTTTTACATCCAGGTCATGACATTTAATCAGGCAGAAACTTTTCCATTTAATCCATTCGATCTCACCAAGGTTT
GGCCTCACAAGGACTACCCTCTCATCCCAGTTGGTAAACTGGTCTTAAACCGGAATCCAGTTAATTACTTTGCTG
AGGTTGAACAGATAGCCTTCGACCCAAGCAACATGCCACCTGGCATTGAGGCCAGTCCTGACAAAATGCTTCAGG
GCCGCCTTTTTGCCTATCCTGACACTCACCGCCATCGCCTGGGACCCAATTATCTTCATATACCTGTGAACTGTC
CCTACCGTGCTCGAGTGGCCAACTACCAGCGTGATGGCCCGATGTGCATGCAGGACAATCAGGGTGGTGCTCCAA
ATTACTACCCCAACAGCTTTGGTGCTCCGGAACAACAGCCTTCTGCCCTGGAGCACAGCATCCAATATTCTGGAG
AAGTGCGGAGATTCAACACTGCCAATGATGATAACGTTACTCAGGTGCGGGCATTCTATGTGAACGTGCTGAATG
AGGAACAGAGGAAACGTCTGTGTGAGAACATTGCCGGCCACCTGAAGGATGCACAAATTTTCATCCAGAAGAAAG
CGGTCAAGAACTTCACTGAGGTCCACCCTGACTACGGGAGCCACATCCAGGCTCTTCTGGACAAGTACAATGCTG
AGAAGCCTAAGAATGCGATTCACACCTTTGTGCAGTCCGGATCTCACTTGGCGGCAAGGGAGAAGGCAAATCTG**T
GA**GGCCGGGGCCCTGCACCTGTGCAGCGAAGCTTAGCGTTCATCCGTGTAACCCGCTCATCACTGGATGAAGATT
CTCCTGTGCTAGATGTGCAAATGCAAGCTAGTGGCTTCAAAATAGAGAATCCCACTTTCTATAGCAGATTGTGTA
ACAATTTTAATGCTATTTCCCCAGGGGAAAATGAAGGTTAGGATTTAACAGTCATTTAAAAAAAAAAATTTGTTTT
GACGGATGATTGGATTATTCATTTAAAATGATTAGAAGGCAAGTTTCTAGCTAGAAATATGATTTTATTTGACAA
AATTTGTTGAAATTATGTATGTTTACATATCACCTCATGGCCTATTATATTAAAATATGGCTATAAATATATAAA
AAGAAAGATAAAGATGATCTACTCAGAAATTTTTATTTTTCTAAGGTTCTCATAGGAAAAGTACATTTAATACA
GCAGTGTCATCAGAAGATAACTTGAGCACCGTCATGGCTTAATGTTTATTCCTGATAATAATTGATCAAATTCAT
TTTTTTCACTGGAGTTACATTAATGTTAATTCAGCACTGATTTCACAACAGATCAATTTGTAATTGCTTACATTT
TTACAATAAATAATCTGTACGTAAGAACA

FIGURE 121

MADSRDPASDQMQHWKEQRAAQKADVLTTGAGNPVGDKLNVITVGPRGPLLVQDVVFTDEMAHFDRERIPERVVH
AKGAGAFGYFEVTHDITKYSKAKVFEHIGKKTPIAVRFSTVAGESGSADTVRDPRGFAVKFYTEDGNWDLVGNNT
PIFFIRDPILFPSFIHSQKRNPQTHLKDPDMVWDFWSLRPESLHQVSFLFSDRGIPDGHRHMNGYGSHTFKLVNA
NGEAVYCKFHYKTDQGIKNLSVEDAARLSQEDPDYGIRDLFNAIATGKYPSWTFYIQVMTFNQAETFPFNPFDLT
KVWPHKDYPLIPVGKLVLNRNPVNYFAEVEQIAFDPSNMPPGIEASPDKMLQGRLFAYPDTHRHRLGPNYLHIPV
NCPYRARVANYQRDGPMCMQDNQGGAPNYYPNSFGAPEQQPSALEHSIQYSGEVRRFNTANDDNVTQVRAFYVNV
LNEEQRKRLCENIAGHLKDAQIFIQKKAVKNFTEVHPDYGSHIQALLDKYNAEKPKNAIHTFVQSGSHLAAREKA
NL

FIGURE 122

ATCAGCGAGGGATTCACGGCGAA**ATG**AGACTGTTCGTGAGTGATGGCGTCCCGGGTTGCTTGCCGGTGCTGGCCG
CCGCCGGGAGAGCCCGGGGCAGAGCAGAGGTGCTCATCAGCACTGTAGGCCCGGAAGATTGTGTGGTCCCGTTCC
TGACCCGGCCTAAGGTCCCTGTCTTGCAGCTGGATAGCGGCAACTACCTCTTCTCCACTAGTGCAATCTGCCGAT
ATTTTTTTTTGTTATCTGGCTGGGAGCAAGATGACCTCACTAACCAGTGGCTGGAATGGGAAGCGACAGAGCTGC
AGCCAGCTTTGTCTGCTGCCCTGTACTATTTAGTGGTCCAAGGCAAGAAGGGGGAAGATGTTCTTGGTTCAGTGC
GGAGAGCCCTGACTCACATTGACCACAGCTTGAGTCGTCAGAACTGTCCTTTCCTGGCTGGGGAGACAGAATCTC
TAGCCGACATTGTTTTGTGGGGAGCCCTATACCCATTACTGCAAGATCCCGCCTACCTCCCTGAGGAGCTGAGTG
CCCTGCACAGCTGGTTCCAGCACTGAGTACCCAGGAACCATGTCAGCGAGCTGCAGAGACTGTACTGAAACAGC
AAGGTGTCCTGGCTCTCCGGCCTTACCTCCAAAAGCAGCCCCAGCCCAGCCCCGCTGAGGGAAGGGCTGTCACCA
ATGAGCCTGAGGAGGAGGAGCTGGCTACCCTATCTGAGGAGGAGATTGCTATGGCTGTTACTGCTTGGGAGAAGG
GCCTAGAAAGTTTGCCCCCGCTGCGGCCCCAGCAGAATCCAGTGTTGCCTGTGGCTGGAGAAAGGAATGTGCTCA
TCACCAGTGCCCTCCCTTACGTCAACAATGTCCCCCACCTTGGGAACATCATTGGTTGTGTGCTCAGTGCCGATG
TCTTTGCCAGGTACTCTCGCCTCCGCCAGTGGAACACCCTCTATCTGTGTGGGACAGATGAGTATGGTACAGCAA
CAGAGACCAAGGCTCTGGAGGAGGGACTAACCCCCCAGGAGATCTGCGACAAGTACCACATCATCCATGCTGACA
TCTACCGCTGGTTTAACATTTCGTTTGATATTTTTGGTCGCACCACCACTCCACAGCAGACCAAAATCACCCAGG
ACATTTTCCAGCAGTTGCTGAAACGAGGTTTTGTGCTGCAAGATACTGTGGAGCAACTGCGATGTGAGCACTGTG
CTCGCTTCCTGGCTGACCGCTTCGTGGAGGGCGTGTGTCCCTTCTGTGGCTATGAGGAGGCTCGGGGTGACCAGT
GTGACAAGTGTGGCAAGCTCATCAATGCTGTCGAGCTTAAGAAGCCTCAGTGTAAAGTCTGCCGATCATGCCCTG
TGGTGCAGTCGAGCCAGCACCTGTTTCTGGACCTGCCTAAGCTGGAGAAGCGACTGGAGGAGTGGTTGGGGAGGA
CATTGCCTGGCAGTGACTGGACACCCAATGCCCAGTTTATCACCCGTTCTTGGCTTCGGGATGGCCTCAAGCCAC
GCTGCATAACCCGAGACCTCAAATGGGGAACCCCTGTACCCTTAGAAGGTTTTGAAGACAAGGTATTCTATGTCT
GGTTTGATGCCACTATTGGCTATCTGTCCATCACAGCCAACTACACAGACCAGTGGGAGAGATGGTGGAAGAACC
CAGAGCAAGTGGACCTGTATCAGTTCATGGCCAAAGACAATGTTCCTTTCCATAGCTTAGTCTTTCCTTGCTCAG
CCCTAGGAGCTGAGGATAACTATACCTTGGTCAGCCACCTCATTGCTACAGAGTACCTGAACTATGAGGATGGGA
AATTCTCTAAGAGCCGCGGTGTGGGAGTGTTTGGGGACATGGCCCAGGACACGGGGATCCCTGCTGACATCTGGC
GCTTCTATCTGCTGTACATTCGGCCTGAGGGCCAGGACAGTGCTTTCTCCTGGACGGACCTGCTGCTGAAGAATA
ATTCTGAGCTGCTTAACAACCTGGGCAACTTCATCAACAGAGCTGGGATGTTTGTGTCTAAGTTCTTTGGGGGCT
ATGTGCCTGAGATGGTGCTCACCCCTGATGATCAGCGCCTGCTGGCCCATGTCACCCTGGAGCTCCAGCACTATC
ACCAGCTACTTGAGAAGGTTCGGATCCGGGATGCCTTGCGCAGTATCCTCACCATATCTCGACATGGCAACCAAT
ATATTCAGGTGAATGAGCCCTGGAAGCGGATTAAAGGCAGTGAGGCTGACAGGCAACGGGCAGGAACAGTGACTG
GCTTGGCAGTGAATATAGCTGCCTTGCTCTCTGTCATGCTTCAGCCTTACATGCCCACGGTTAGTGCCACAATCC
AGGCCCAGCTGCAGCTCCCACCTCCAGCCTGCAGTATCCTGCTGACAAACTTCCTGTGTACCTTACCAGCAGGAC
ACCAGATTGGCACAGTCAGTCCCTTGTTCCAAAAATTGGAAAATGACCAGATTGAAAGTTTAAGGCAGCGCTTTG
GAGGGGGCCAGGCAAAAACGTCCCCGAAGCCAGCAGTTGTAGAGACTGTTACAACAGCCAAGCCACAGCAGATAC
AAGCGCTGATGGATGAAGTGACAAAACAAGGAAACATTGTCCGAGAACTGAAAGCACAAAAGGCAGACAAGAACG
AGGTTGCTGCGGAGGTGGCGAAACTCTTGGATCTAAAGAAACAGTTGGCTGTAGCTGAGGGGAAACCCCCTGAAG
CCCCTAAAGGCAAGAAGAAAAAG**TAA**AAGACCTTGGCTCATAGAAAGTCACTTTAATAGATAGGGACAGTAATAA
ATAAATGTACAATCTCTATA

FIGURE 123

MRLFVSDGVPGCLPVLAAAGRARGRAEVLISTVGPEDCVVPFLTRPKVPVLQLDSGNYLFSTSAICRYFFLLSGW
EQDDLTNQWLEWEATELQPALSAALYYLVVQGKKGEDVLGSVRRALTHIDHSLSRQNCPFLAGETESLADIVLWG
ALYPLLQDPAYLPEELSALHSWFQTLSTQEPCQRAAETVLKQQGVLALRPYLQKQPQPSPAEGRAVTNEPEEEEL
ATLSEEEIAMAVTAWEKGLESLPPLRPQQNPVLPVAGERNVLITSALPYVNNVPHLGNIIGCVLSADVFARYSRL
RQWNTLYLCGTDEYGTATETKALEEGLTPQEICDKYHIIHADIYRWFNISFDIFGRTTTPQQTKITQDIFQQLLK
RGFVLQDTVEQLRCEHCARFLADRFVEGVCPFCGYEEARGDQCDKCGKLINAVELKKPQCKVCRSCPVVQSSQHL
FLDLPKLEKRLEEWLGRTLPGSDWTPNAQFITRSWLRDGLKPRCITRDLKWGTPVPLEGFEDKVFYVWFDATIGY
LSITANYTDQWERWWKNPEQVDLYQFMAKDNVPFHSLVFPCSALGAEDNYTLVSHLIATEYLNYEDGKFSKSRGV
GVFGDMAQDTGIPADIWRFYLLYIRPEGQDSAFSWTDLLLKNNSELLNNLGNFINRAGMFVSKFFGGYVPEMVLT
PDDQRLLAHVTLELQHYHQLLEKVRIRDALRSILTISRHGNQYIQVNEPWKRIKGSEADRQRAGTVTGLAVNIAA
LLSVMLQPYMPTVSATIQAQLQLPPPACSILLTNFLCTLPAGHQIGTVSPLFQKLENDQIESLRQRFGGGQAKTS
PKPAVVETVTTAKPQQIQALMDEVTKQGNIVRELKAQKADKNEVAAEVAKLLDLKKQLAVAEGKPPEAPKGKKKK

FIGURE 124

ATTCGAACCCCGTCGCGCCCCTTTGTGCGTCACGGGTGGCGGGCGCGGGAAGGGGATTTGGATTGTTGCGCCTCT
GCTCTGAAGAAAGTGCTGTCTGGCTCCAACTCCAGTTCTTTCCCCTGAGCAGCGCCTGGAACCTAACCCTTCCCA
CTCTGTCACCTTCTCGATCCCGCCGGCGCTTTAGAGCCGCAGTCCAGTCTTGGATCCTTCAGAGCCTCAGCCACT
AGCTGCG**ATG**CATGTGATCAAGCGAGATGGCCGCCAAGAACGAGTCATGTTTGACAAAATTACATCTCGAATCCA
GAAGCTTTGTTATGGACTCAATATGGATTTTGTTGATCCTGCTCAGATCACCATGAAAGTAATCCAAGGCTTGTA
CAGTGGGGTCACCACAGTGGAACTAGATACTTTGGCTGCTGAAACAGCTGCAACCTTGACTACTAAGCACCCTGA
CTATGCTATCCTGGCAGCCAGGATCGCTGTCTCTAACTTGCACAAAGAAACAAAGAAAGTGTTCAGTGATGTGAT
GGAAGACCTCTATAACTACATAAATCCACATAATGGCAAACACTCTCCCATGGTGGCCAAGTCAACATTGGATAT
TGTTCTGGCCAATAAAGATCGCCTGAATTCTGCTATTATCTATGACCGAGATTTCTCTTACAATTACTTCGGCTT
TAAGACGCTAGAGCGGTCTTATTTGTTGAAGATCAATGGAAAAGTGGCTGAAAGACCACAACATATGTTGATGAG
AGTATCTGTTGGGATCCACAAAGAAGACATTGATGCAGCAATTGAAACATATAATCTTCTTTCTGAGAGGTGGTT
TACTCATGCTTCGCCCACTCTCTTCAATGCTGGTACCAACCGCCCACAACTTTCTAGCTGTTTTCTTCTGAGTAT
GAAAGATGACAGCATTGAAGGCATTTATGACACTCTAAAGCAATGTGCATTGATTTCTAAGTCTGCTGGAGGAAT
TGGTGTTGCTGTGAGTTGTATTCGGGCTACTGGCAGCTACATTGCTGGGACTAATGGCAATTCCAATGGCCTTGT
ACCGATGCTGAGAGTATATAACAACACAGCTAGATATGTGGATCAAGGTGGGAACAAGCGTCCTGGGGCATTTGC
TATTTACCTGGAGCCTTGGCATTTAGACATCTTTGAATTCCTTGATTTAAAGAAGAACACAGGAAAGGAAGAGCA
GCGTGCCAGAGATCTTTTCTTTGCTCTTTGGATTCCGGATCTCTTCATGAAACGAGTGGAGACTAATCAGGACTG
GTCTTTGATGTGTCCAAATGAGTGTCCTGGTCTGGATGAGGTTTGGGGAGAGGAATTTGAGAAACTATATGCAAG
TTATGAGAAACAAGGTCGTGTCCGCAAAGTTGTAAAAGCTCAGCAGCTTTGGTATGCCATCATTGAGTCTCAGAC
GGAAACAGGCACCCGTATATGCTCTACAAAGATTCCTGTAATCGAAAGAGCAACCAGCAGAACCTGGGAACCAT
CAAATGCAGCAACCTGTGCACAGAAATAGTGGAGTACACCAGCAAAGATGAGGTTGCTGTTTGTAATTTGGCTTC
CCTGGCCCTGAATATGTATGTCACATCAGAACACACATACGACTTTAAGAAGTTGGCTGAAGTCACTAAAGTCGT
TGTCCGAAACTTGAATAAAATTATTGATATAAACTACTATCCTGTACCAGAGGCATGCCTATCAAATAAACGCCA
TCGCCCCATTGGAATTGGGGTACAAGGTCTGGCAGATGCTTTTATCCTGATGAGATACCCTTTTGAGAGTGCAGA
AGCCCAGTTACTGAATAAGCAGATCTTTGAAACTATTTATTATGGTGCTCTGGAAGCCAGCTGTGACCTTGCCAA
GGAGCAGGGCCCATACGAAACCTATGAGGGCTCTCCAGTTAGCAAAGGAATTCTTCAGTATGATATGTGGAATGT
TACTCCTACAGACCTATGGGACTGGAAGGTTCTCAAGGAGAAGATTGCAAAGTATGGTATAAGAAACAGTTTACT
TATTGCCCCGATGCCTACAGCTTCCACTGCTCAGATCCTGGGGAATAATGAGTCCATTGAACCTTACACCAGCAA
CATCTATACTCGCAGAGTCTTGTCAGGAGAATTTCAGATTGTAAATCCTCACTTATTGAAAGATCTTACCGAGCG
GGGCCTATGGCATGAAGAGATGAAAAACCAGATTATTGCATGCAATGGCTCTATTCAGAGCATACCAGAAATTCC
TGATGACCTGAAGCAACTTTATAAAACTGTGTGGGAAATCTCTCAGAAAACTGTTCTCAAGATGGCAGCTGAGAG
AGGTGCTTTCATTGATCAAAGCCAATCTTTGAACATCCACATTGCTGAGCCTAACTATGGCAAACTCACTAGTAT
GCACTTCTACGGCTGGAAGCAGGGTTTGAAGACTGGGATGTATTATTTAAGGACAAGACCAGCAGCTAATCCAAT
CCAGTTCACTCTAAATAAGGAGAAGCTAAAAGATAAAGAAAAGGTATCAAAAGAGGAAGAAGAGAAGGAGAGGAA
CACAGCAGCCATGGTGTGCTCTTTGGAGAATAGAGATGAATGTCTGATGTGTGGATCC**TGA**GGAAAGACTTGGAA
GAGACCAGCATGTCTTCAGTAGCCAAACTACTTCTTGAGCATAGATAGGTATAGTGGGTTTGCTTGAGGTGGTAA
GGCTTTGCTGGACCCTGTTGCAGGCAAAAGGAGTAATTGATTTAAAGTACTGTTAATGATGTTAATGATTTTTTT
TTAAACTCATATATTGGGATTTTCACCAAAATAATGCTTTTGAAAAAAAGAAAAAAAAAACGGATATATTGAGAA
TCAAAGTAGAAGTTTTAGGAATGCAAAATAAGTCATCTTGCATACAGGGAGTGGTTAAGTAAGGTTTCATCACCC
ATTTAGCATGCTTTTCTGAAGACTTCAGTTTTGTTAAGGAGATTTAGTTTTACTGCTTTGACTGGTGGGTCTCTA
GAAGCAAAACTGAGTGATAACTCATGAGAAGTACTGATAGGACCTTTATCTGGATATGGTCCTATAGGTTATTCT
GAAATAAAGATAAACATTTCTAAGTGAAAAAAAAAAAAAAAA

FIGURE 125

MHVIKRDGRQERVMFDKITSRIQKLCYGLNMDFVDPAQITMKVIQGLYSGVTTVELDTLAAETAATLTTKHPDYA
ILAARIAVSNLHKETKKVFSDVMEDLYNYINPHNGKHSPMVAKSTLDIVLANKDRLNSAIIYDRDFSYNYFGFKT
LERSYLLKINGKVAERPQHMLMRVSVGIHKEDIDAAIETYNLLSERWFTHASPTLFNAGTNRPQLSSCFLLSMKD
DSIEGIYDTLKQCALISKSAGGIGVAVSCIRATGSYIAGTNGNSNGLVPMLRVYNNTARYVDQGGNKRPGAFAIY
LEPWHLDIFEFLDLKKNTGKEEQRARDLFFALWIPDLFMKRVETNQDWSLMCPNECPGLDEVWGEEFEKLYASYE
KQGRVRKVVKAQQLWYAIIESQTETGTPYMLYKDSCNRKSNQQNLGTIKCSNLCTEIVEYTSKDEVAVCNLASLA
LNMYVTSEHTYDFKKLAEVTKVVVRNLNKIIDINYYPVPEACLSNKRHRPIGIGVQGLADAFILMRYPFESAEAQ
LLNKQIFETIYYGALEASCDLAKEQGPYETYEGSPVSKGILQYDMWNVTPTDLWDWKVLKEKIAKYGIRNSLLIA
PMPTASTAQILGNNESIEPYTSNIYTRRVLSGEFQIVNPHLLKDLTERGLWHEEMKNQIIACNGSIQSIPEIPDD
LKQLYKTVWEISQKTVLKMAAERGAFIDQSQSLNIHIAEPNYGKLTSMHFYGWKQGLKTGMYYLRTRPAANPIQF
TLNKEKLKDKEKVSKEEEEKERNTAAMVCSLENRDECLMCGS

FIGURE 126

TCTGGGCGCGCGCGACGTCAGTTTGAGTTCTGTGTTCTCCCCGCCCGTGTCCCGCCCGACCCGCGCCCGCG**ATG**C
TGGCGCTGCGCTGCGGCTCCCGCTGGCTCGGCCTGCTCTCCGTCCCGCGCTCCGTGCCGCTGCGCCTCCCCGCGG
CCCGCGCCTGCAGCAAGGGCTCCGGCGACCCGTCCTCTTCCTCCTCCTCCGGGAACCCGCTCGTGTACCTGGACG
TGGACGCCAACGGGAAGCCGCTCGGCCGCGTGGTGCTGGAGCTGAAGGCAGATGTCGTCCCAAAGACAGCTGAGA
ACTTCAGAGCCCTGTGCACTGGTGAGAAGGGCTTCGGCTACAAAGGCTCCACCTTCCACAGGGTGATCCCTTCCT
TCATGTGCCAGGCGGGCGACTTCACCAACCACAATGGCACAGGCGGGAAGTCCATCTACGGAAGCCGCTTTCCTG
ACGAGAACTTTACACTGAAGCACGTGGGGCCAGGTGTCCTGTCCATGGCTAATGCTGGTCCTAACACCAACGGCT
CCCAGTTCTTCATCTGCACCATAAAGACAGACTGGTTGGATGGCAAGCATGTTGTGTTCGGTCACGTCAAAGAGG
GCATGGACGTCGTGAAGAAAATAGAATCTTTCGGCTCTAAGAGTGGGAGGACATCCAAGAAGATTGTCATCACAG
ACTGTGGCCAGTTGAGC**TAA**TCTGTGGCCAGGGTGCTGGCATGGTGGCAGCTGCAAATGTCCATGCACCCAGGTG
GCCGCGTTGGGCTGTCAGCCAAGGTGCCTGAAACGATACGTGTGCCCACTCCACTGTCACAGTGTGCCTGAGGAA
GGCTGCTAGGGATGTTAGACCTCGGCCAGGACCCACCACATTGCTTCCTAATACCCACCCTTCCTCACGACCTCA
TTTCTGGGCATCTTTGTGGACATGATGTCACCCACCCCTTGTCAAGCATTGCCTGTGATTGCCCAGCCCAGATTC
ATCTGTGCCTTGGACATGGTGATGGTGATGGGTTGCCATCCAAGTGAAAGTCTTTTCCTTGACCAAGGGGGACAG
TCAGTTTTGCAAAAGGACTCTAATACCTGTTTAATATTGTCTTCCTAATTGGGATAATTTAATTAACAAGATTGA
CTAGAAGTGAAACTGCAACACTAACTTCCCCGTGCTGTGGTGTGACCTGAGTTGGTGACACAGGCCACAGACCCC
AGAGCTTGGCTTTTGAAACACAACTCAGGGCTTTTGTGAAGGTTCCCCCGCTGAGATCTTTCCTCCTGGTTACTG
TGAAGCCTGTTGGTTTGCTGCTGTCGTTTTTGAGGAGGGCCCATGGGGGTAGGAGCAGTTGAACCTGGGAACAAA
CCTCACTTGAGCTGTGCCTAGACAATGTGAATTCCTGTGTTGCTAACAGAAGTGGCCTGTAAGCTCCTGTGCTCC
GGAGGGAAGCATTTCCTGGTAGGCTTTGATTTTTCTGTGTGTTAAAGAAATTCAATCTACTCATGATGTGTTATG
CATAAAACATTTCTGGAACATGGATTTGTGTTCACCTTAAATGTGAAAATAAATCCTATTTTCTATGGAAAAAAA
AAAAAAAAAAAAAAAA

FIGURE 127

MLALRCGSRWLGLLSVPRSVPLRLPAARACSKGSGDPSSSSSSGNPLVYLDVDANGKPLGRVVLELKADVVPKTA
ENFRALCTGEKGFGYKGSTFHRVIPSFMCQAGDFTNHNGTGGKSIYGSRFPDENFTLKHVGPGVLSMANAGPNTN
GSQFFICTIKTDWLDGKHVVFGHVKEGMDVVKKIESFGSKSGRTSKKIVITDCGQLS

FIGURE 128

TCTGGGCGCGCGCGACGTCAGTTTGAGTTCTGTGTTCTCCCCGCCCGTGTCCCGCCCGACCCGCGCCCGCG**ATG**C
TGGCGCTGCGCTGCGGCTCCCGCTGGCTCGGCCTGCTCTCCGTCCCGCGCTCCGTGCCGCTGCGCCTCCCCGCGG
CCCGCGCCTGCAGCAAGGGCTCCGGCGACCCGTCCTCTTCCTCCTCCTCCGGGAACCCGCTCGTGTACCTGGACG
TGGACGCCAACGGGAAGCCGCTCGGCCGCGTGGTGCTGGAGCTGAAGGCAGATGTCGTCCCAAAGACAGCTGAGA
ACTTCAGAGCCCTGTGCACTGGTGAGAAGGGCTTCGGCTACAAAGGCTCCACCTTCCACAGGGTGATCCCTTCCT
TCATGTGCCAGGCGGGCGACTTCACCAACCACAATGGCACAGGCGGGAAGTCCATCTACGGAAGCCGCTTTCCTG
ACGAGAACTTTACACTGAAGCACGTGGGGCCAGGTGTCCTGTCCATGGCTAATGCTGGTCCTAACACCAACGGCT
CCCAGTTCTTCATCTGCACCATAAAGACAGACTGGTTGGATGGCAAGCATGTTGTGTTCGGTCACGTCAAAGAGG
GCATGGACGTCGTGAAGAAAATAGAATCTTTCGGCTCTAAGAGTGGGAGGACATCCAAGAAGATTGTCATCACAG
ACTGTGGCCAGTTGAGC**TAA**TCTGTGGCCAGGGTGCTGGCATGGTGGCAGCTGCAAATGTCCATGCACCCAGGTG
GCCGCGTTGGGCTGTCAGCCAAGGTGCCTGAAACGATACGTGTGCCCACTCCACTGTCACAGTGTGCCTGAGGAA
GGCTGCTAGGGATGTTAGACCTCGGCCAGGACCCACCACATTGCTTCCTAATACCCACCCTTCCTCACGACCTCA
TTTCTGGGCATCTTTGTGGACATGATGTCACCCACCCCTTGTCAAGCATTGCCTGTGATTGCCCAGCCCAGATTC
ATCTGTGCCTTGGACATGGTGATGGTGATGGGTTGCCATCCAAGTGAAAGTCTTTTCCTTGACCAAGGGGGACAG
TCAGTTTTGCAAAAGGACTCTAATACCTGTTTAATATTGTCTTCCTAATTGGGATAATTTAATTAACAAGATTGA
CTAGAAGTGAAACTGCAACACTAACTTCCCCGTGCTGTGGTGTGACCTGAGTTGGTGACACAGGCCACAGACCCC
AGAGCTTGGCTTTTGAAACACAACTCAGGGCTTTTGTGAAGGTTCCCCCGCTGAGATCTTTCCTCCTGGTTACTG
TGAAGCCTGTTGGTTTGCTGCTGTCGTTTTTGAGGAGGGCCCATGGGGGTAGGAGCAGTTGAACCTGGGAACAAA
CCTCACTTGAGCTGTGCCTAGACAATGTGAATTCCTGTGTTGCTAACAGAAGTGGCCTGTAAGCTCCTGTGCTCC
GGAGGGAAGCATTTCCTGGTAGGCTTTGATTTTTCTGTGTGTTAAAGAAATTCAATCTACTCATGATGTGTTATG
CATAAAACATTTCTGGAACATGGATTTGTGTTCACCTTAAATGTGAAAATAAATCCTATTTTCTATGGAAAAAAA
AAAAAAAAAAAAAAAAA

FIGURE 129

MLALRCGSRWLGLLSVPRSVPLRLPAARACSKGSGDPSSSSSSGNPLVYLDVDANGKPLGRVVLELKADVVPKTA
ENFRALCTGEKGFGYKGSTFHRVIPSFMCQAGDFTNHNGTGGKSIYGSRFPDENFTLKHVGPGVLSMANAGPNTN
GSQFFICTIKTDWLDGKHVVFGHVKEGMDVVKKIESFGSKSGRTSKKIVITDCGQLS

FIGURE 130

CGGCGGAGCTGGTCCCGTTGTGCTGCGGCGCCGCGCGGCCTGCAGTCCCGGGCCCGCGCCCCGCGCCGCCCGCCC
GCCCGCC**ATG**GAGCCCGGCCCCGACGGCCCCGCCGCCTCCGGCCCCGCCGCCATCCGCGAGGGCTGGTTCCGCGA
GACCTGCAGCCTGTGGCCCGGCCAGGCCCTGTCGCTGCAGGTGGAGCAGCTGCTCCACCACCGGCGCTCGCGCTA
CCAGGACATCCTCGTCTTCCGCAGTAAGACCTATGGCAACGTGCTGGTGTTGGACGGTGTCATCCAGTGCACGGA
GAGAGACGAGTTCTCCTACCAGGAGATGATCGCCAACCTGCCTCTCTGCAGCCACCCCAACCCGCGAAAGGTGCT
GATCATCGGGGGCGGAGATGGAGGTGTCCTGCGGGAGGTGGTGAAGCACCCCTCCGTGGAGTCCGTGGTCCAGTG
TGAGATCGACGAGGATGTCATCCAAGTCTCCAAGAAGTTCCTGCCAGGCATGGCCATTGGCTACTCTAGCTCGAA
GGTGACCCTACATGTGGGTGACGGTTTTGAGTTCATGAAACAGAATCAGGATGCCTTCGACGTGATCATCACTGA
CTCCTCAGACCCCATGGGCCCCGCCGAAAGTCTCTTCAAGGAGTCCTATTACCAGCTCATGAAGACAGCCCTCAA
GGAAGATGGTGTCCTCTGCTGCCAGGGCGAGTGCGAGTGGCTGCACCTGGACCTCATCAAGGAGATGCGGCAGTT
CTGCCAGTCCCTGTTCCCCGTGGTGGCCTATGCCTACTGCACCATCCCCACCTACCCCAGCGGCCAGATCGGCTT
CATGCTGTGCAGCAAGAACCCGAGCACGAACTTCCAGGAGCCGGTGCAGCCGCTGACACAGCAGCAGGTGGCGCA
GATGCAGCTGAAGTACTACAACTCCGACGTGCACCGCGCCGCCTTTGTGCTGCCCGAGTTTGCCCGCAAGGCCCT
GAATGATGTGAGC**TGA**GCCCAGGCGCCACCACTGATGCCACCCAGGACCTCGGACCTTGGAGCCTGCGGGGTGCC
TCGGCCCCTCCAGCCCCGGGCCGGACCTCCTGCTGGCTCTCGCCCACCAACCAAGTGTTACAAGCCCCAGAATGC
TGCCCGGCCTGCCCTGCTGGGCGGACTGTCTGTGTGTCTGTCTCTGGCGTTCCACCTCCAAGCCTATACCAGC
TGTGTACAGCGCCATCTCTCTGCCTTCTGTTGCCCCCG

FIGURE 131

MEPGPDGPAASGPAAIREGWFRETCSLWPGQALSLQVEQLLHHRRSRYQDILVFRSKTYGNVLVLDGVIQCTERD
EFSYQEMIANLPLCSHPNPRKVLIIGGGDGGVLREVVKHPSVESVVQCEIDEDVIQVSKKFLPGMAIGYSSSKVT
LHVGDGFEFMKQNQDAFDVIITDSSDPMGPAESLFKESYYQLMKTALKEDGVLCCQGECEWLHLDLIKEMRQFCQ
SLFPVVAYAYCTIPTYPSGQIGFMLCSKNPSTNFQEPVQPLTQQQVAQMQLKYYNSDVHRAAFVLPEFARKALND
VS

FIGURE 132

GCGCTCCGGGCCTGGAATCCCTACGCGTCCCTTTGGGTTTAGCACG**ATG**AGCTCAATCGGCACTGGGTATGACCT
GTCAGCCTCTACATTCTCTCCTGACGGAAGAGTTTTTCAAGTTGAATATGCTATGAAGGCTGTGGAAAATAGTAG
TACAGCTATTGGAATCAGATGCAAAGATGGTGTTGTCTTTGGGGTAGAAAAATTAGTCCTTTCTAAACTTTATGA
AGAAGGTTCCAACAAAAGACTTTTTAATGTTGATCGGCATGTTGGAATGGCAGTAGCAGGTTTGTTGGCAGATGC
TCGTTCTTTAGCAGACATAGCAAGAGAAGAAGCTTCCAACTTCAGATCTAACTTTGGCTACAACATTCCACTAAA
ACATCTTGCAGACAGAGTGGCCATGTATGTGCATGCATATACACTCTACAGTGCTGTTAGACCTTTTGGCTGCAG
TTTCATGTTAGGGTCTTACAGTGTGAATGACGGTGCGCAACTCTACATGATTGACCCATCAGGTGTTTCATACGG
TTATTGGGGCTGTGCCATCGGCAAAGCCAGGCAAGCTGCAAAGACGGAAATAGAGAAGCTTCAGATGAAAGAAAT
GACCTGCCGTGATATCGTTAAAGAAGTTGCAAAAATAATTTACATAGTACATGACGAAGTTAAGGATAAAGCTTT
TGAACTAGAACTCAGCTGGGTTGGTGAATTAACTAATGGAAGACATGAAATTGTTCCAAAAGATATAAGAGAAGA
AGCAGAGAAATATGCTAAGGAATCTCTGAAGGAAGAAGATGAATCAGATGATGATAATATG**TAA**CATTTACTCCA
GCATCTATTGTATTTTAAATTTCTACTCCAGTCCAATGTAACTATTTAGCCCTGGATTATACATACTGTCCAATT
TTCATTAAATTTTTGTCTTATAACTATAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 133

MSSIGTGYDLSASTFSPDGRVFQVEYAMKAVENSSTAIGIRCKDGVVFGVEKLVLSKLYEEGSNKRLFNVDRHVG
MAVAGLLADARSLADIAREEASNFRSNFGYNIPLKHLADRVAMYVHAYTLYSAVRPFGCSFMLGSYSVNDGAQLY
MIDPSGVSYGYWGCAIGKARQAAKTEIEKLQMKEMTCRDIVKEVAKIIYIVHDEVKDKAFELELSWVGELTNGRH
EIVPKDIREEAEKYAKESLKEEDESDDDNM

FIGURE 134

CGGCACGAGGCGACTTTGGTGGAGGTAGTTCTTTGGCAGCGGGC**ATG**GCGGGTACCGTGGTGCTGGACGATGTGG
AGCTGCGGGAGGCTCAGAGAGATTACCTGGACTTCCTGGACGACGAGGAAGACCAGGGAATTTATCAGAGCAAAG
TTCGGGAGCTGATCAGTGACAACCAATACCGGCTGATTGTCAATGTGAATGACCTGCGCAGGAAAAACGAGAAGA
GGGCTAACCGGCTTCTGAACAATGCCTTTGAGGAGCTGGTTGCCTTCCAGCGGGCCTTAAAGGATTTTGTGGCCT
CCATTGATGCTACCTATGCCAAGCAGTATGAGGAGTTCTACGTAGGACTGGAAGGCAGCTTTGGCTCCAAGCACG
TCTCCCCGCGGACTCTTACCTCCTGCTTCCTCAGCTGTGTGGTCTGTGTGGAGGGCATTGTCACTAAATGTTCTC
TAGTTCGTCCCAAAGTCGTCCGCAGTGTCCACTACTGTCCTGCTACTAAGAAGACCATAGAGCGACGTTATTCTG
ATCTCACCACCCTGGTGGCCTTTCCCTCCAGCTCTGTCTATCCTACCAAGGATGAGGAGAACAATCCCCTTGAGA
CAGAATATGGCCTTTCTGTCTACAAGGATCACCAGACCATCACCATCCAGGAGATGCCGGAGAAGGCCCCAGCCG
GCCAGCTCCCCCGCTCTGTGGACGTCATTCTGGATGATGACTTGGTGGATAAAGCGAAGCCTGGTGACCGGGTTC
AGGTGGTGGGAACCTACCGTTGCCTTCCTGGAAAGAAGGGAGGCTACACCTCTGGGACCTTCAGGACTGTCCTGA
TTGCCTGTAATGTTAAGCAGATGAGCAAGGATGCTCAGCCCTCTTTCTCTGCTGAGGATATAGCCAAGATCAAGA
AGTTCAGTAAAACCCGATCCAAGGATATCTTTGACCAGCTGGCCAAGTCATTGGCCCCAAGTATCCATGGGCATG
ACTATGTCAAGAAAGCAATCCTCTGCTTGCTCTTGGGAGGGGTGGAACGAGACCTAGAAAATGGCAGCCACATCC
GTGGGGACATCAATATTCTTCTAATAGGAGACCCATCCGTTGCCAAGTCTCAGCTTCTGCGGTATGTGCTTTGCA
CTGCACCCCGAGCTATCCCCACCACTGGCCGGGGCTCCTCTGGAGTGGGTCTGACGGCTGCTGTCACCACAGACC
AGGAAACAGGAGAGCGCCGTCTGGAAGCAGGGGCCATGGTCCTGGCTGACCGAGGCGTGGTTTGCATTGATGAAT
TTGACAAAATGTCTGACATGGATCGCACAGCCATCCATGAAGTGATGGAGCAGGGTCGAGTGACCATTGCCAAGG
CTGGCATCCATGCTCGGCTGAATGCCCGCTGCAGTGTTTTGGCAGCTGCCAACCCTGTCTACGGCAGGTATGACC
AGTATAAGACTCCAATGGAGAACATTGGGCTACAGGACTCACTGCTGTCACGATTTGACTTGCTCTTCATCATGC
TGGATCAGATGGATCCTGAGCAGGATCGGGAGATCTCAGACCATGTCCTTCGGATGCACCGTTACAGAGCACCTG
GGGAGCAGGATGGCGATGCTATGCCCTTGGGTAGTGCTGTGGATATCCTGGCCACAGATGATCCCAACTTTAGCC
AGGAAGATCAGCAGGACACCCAGATTTATGAGAAGCATGACAACCTTCTACATGGGACCAAGAAGAAAAAGGAGA
AGATGGTGAGTGCAGCATTCATGAAGAAGTACATCCATGTGGCCAAAATCATCAAGCCTGTCCTGACACAGGAGT
CGGCCACCTACATTGCAGAAGAGTATTCACGCCTGCGCAGCCAGGATAGCATGAGCTCAGACACCGCCAGGACAT
CTCCAGTTACAGCCCGAACACTGGAAACTCTGATTCGACTGGCCACAGCCCATGCGAAGGCCCGCATGAGCAAGA
CTGTGGACCTGCAGGATGCAGAGGAAGCTGTGGAGTTGGTCCAGTATGCTTACTTTAAGAAGGTTCTGGAGAAGG
AGAAGAAACGTAAGAAGCGAAGTGAGGATGAATCAGAGACAGAAGATGAAGAGGAGAAAAGCCAAGAGGACCAGG
AGCAGAAGAGGAAGAGAAGGAAGACTCGCCAGCCAGATGCCAAAGATGGGGATTCATACGACCCCTATGACTTCA
GTGACACAGAGGAGGAAATGCCTCAAGTACACACTCCAAAGACGGCAGACTCACAGGAGACCAAGGAATCCCAGA
AAGTGGAGTTGAGTGAATCCAGGTTGAAGGCATTCAAGGTGGCCCTCTTGGATGTGTTCCGGGAAGCTCATGCGC
AGTCAATCGGCATGAATCGCCTCACAGAATCCATCAACCGGGACAGCGAAGAGCCCTTCTCTTCAGTTGAGATCC
AGGCTGCTCTGAGCAAGATGCAGGATGACAATCAGGTCATGGTGTCTGAGGGCATCATCTTCCTCATC**TGA**GGAG
GCCTCGTCTCTGAACTTGGGTTGTGCCGAGAGAGTTTGTTCTGTGTTTCCCACCCTCTCCCTGACCCAAGTCTTT
GCCTCTACTCCCTTAACAGTGTTGAATTCAACTGAAGGCGAGGAATGTTGGTGATGAAGCTGAGTTCAGGACTCG
GTGGACCCTTTGGGAATGGGTCATGAAAGCTGCCATGGGGTGAGGAAAGAGGAGACAGTGGGAGAGGACAATGAC
TATTGCATCTTCATTGCAAAAGCACTGGCTCATCCGCCCTACTTCCCATCCCACACAAACCCAATTGTAAATAAC
ATATGACTTCTGAGTACTTTTGGGGGCACAACTGTTTTCTGTTTGCTGTTTTTTGTTTTGTTTTTTTTCTCCAG
AGCACTTTGGTCTAGACTAGGCTTTGGGTGGTTCCAATTGGTGGAGAGAAGCTCTGAGGCACGTCATGCAGGTCA
AGAAAGCTTTCTTTGCAGTAGCACCAGTTAAGGTGAATATGTATTGTATCACAAAACAAACCCAATATCCAGATG
AATATCCGAGATGTTGAATAAACTTAGCCATTTCGTACAAAAAAAGGGGGGCCCGGTAAAC

FIGURE 135

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MAGTVVLDDVELREAQRDYLDFLDDEEDQGIYQSKVRELISDNQYRLIVNVNDLRRKNEKRANRLLNNAFEELVA
FQRALKDFVASIDATYAKQYEEFYVGLEGSFGSKHVSPRTLTSCFLSCVVCVEGIVTKCSLVRPKVVRSVHYCPA
TKKTIERRYSDLTTLVAFPSSSVYPTKDEENNPLETEYGLSVYKDHQTITIQEMPEKAPAGQLPRSVDVILDDDL
VDKAKPGDRVQVVGTYRCLPGKKGGYTSGTFRTVLIACNVKQMSKDAQPSFSAEDIAKIKKFSKTRSKDIFDQLA
KSLAPSIHGHDYVKKAILCLLLGGVERDLENGSHIRGDINILLIGDPSVAKSQLLRYVLCTAPRAIPTTGRGSSG
VGLTAAVTTDQETGERRLEAGAMVLADRGVVCIDEFDKMSDMDRTAIHEVMEQGRVTIAKAGIHARLNARCSVLA
AANPVYGRYDQYKTPMENIGLQDSLLSRFDLLFIMLDQMDPEQDREISDHVLRMHRYRAPGEQDGDAMPLGSAVD
ILATDDPNFSQEDQQDTQIYEKHDNLLHGTKKKKEKMVSAAFMKKYIHVAKIIKPVLTQESATYIAEEYSRLRSQ
DSMSSDTARTSPVTARTLETLIRLATAHAKARMSKTVDLQDAEEAVELVQYAYFKKVLEKEKKRKKRSEDESETE
DEEEKSQEDQEQKRKRRKTRQPDAKDGDSYDPYDFSDTEEEMPQVHTPKTADSQETKESQKVELSESRLKAFKVA
LLDVFREAHAQSIGMNRLTESINRDSEEPFSSVEIQAALSKMQDDNQVMVSEGIIFLI
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FIGURE 136

TGCTGCGAACCACGTGGGTCCCGGGCGCGTTTCGGGTGCTGGCGGCTGCAGCCGGAGTTCAAACCTAAGCAGCTG
GAAGGAACC**ATG**GCCAACTGTGAGCGTACCTTCATTGCGATCAAACCAGATGGGGTCCAGCGGGGTCTTGTGGGA
GAGATTATCAAGCGTTTTGAGCAGAAAGGATTCCGCCTTGTTGGTCTGAAATTCATGCAAGCTTCCGAAGATCTT
CTCAAGGAACACTACGTTGACCTGAAGGACCGTCCATTCTTTGCCGGCCTGGTGAAATACATGCACTCAGGGCCG
GTAGTTGCCATGGTCTGGGAGGGGCTGAATGTGGTGAAGACGGGCCGAGTCATGCTCGGGGAGACCAACCCTGCA
GACTCCAAGCCTGGGACCATCCGTGGAGACTTCTGCATACAAGTTGGCAGGAACATTATACATGGCAGTGATTCT
GTGGAGAGTGCAGAGAAGGAGATCGGCTTGTGGTTTCACCCTGAGGAACTGGTAGATTACACGAGCTGTGCTCAG
AACTGGATCTATGAA**TGA**CAGGAGGGCAGACCACATTGCTTTTCACATCCATTTCCCCTCCTTCCCATGGGCAGA
GGACCAGGCTGTAGGAAATCTAGTTATTTACAGGAACTTCATCATAATTTGGAGGGAAGCTCTTGGAGCTGTGAG
TTCTCCCTGTACAGTGTTACCATCCCCGACCATCTGATTAAAATGCTTCCTCCCAGC

FIGURE 137

MANCERTFIAIKPDGVQRGLVGEIIKRFEQKGFRLVGLKFMQASEDLLKEHYVDLKDRPFFAGLVKYMHSGPVVA
MVWEGLNVVKTGRVMLGETNPADSKPGTIRGDFCIQVGRNIIHGSDSVESAEKEIGLWFHPEELVDYTSCAQNWI
YE

FIGURE 138A

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GGCTCATAGAGCTGAACAGTTGCAGGATGCGGAGGAGGAAAAAGATGATTCAAATGAAGAAGAAAACAAAGACAG
CCTTGTAGATGATGAAGAAGAGAAAGAAGATCTTGGCGATGAGGATGAAGCAGAGGAAGAAGAGGAGGAGGACAA
CTTGGCTGCTGGTGTGGATGAGGAGAGAAGTGAGGCCAATGATCAGGGGCCCCCAGGAGAGGACGGTGTGACCCG
GGAGGAAGTAGAGCCTGAGGAGGCTGAAGAAGGCATCTCTGAGCAACCCTGCCCAGCTGACACAGAGGTGGTGGA
AGACTCCTTGAGGCAGCGTAAAAGTCAGCATGCTGACAAGGGACTGTAGATTTAATGATGCGTTTTCAAGAATAC
ACACCAAAACAATATGTCAGCTTCCCTTTGGCCTGCAGTTTGTACCAAATCCTTAATTTTTCCTGAATGAGCAAG
CTTCTCTTAAAAGATGCTCTCTAGTCATTTGGTCTCATGGCAGTAAGCCTCATGTATACTAAGGAGAGTCTTCCA
GGTGTGACAATCAGGATATAGAAAAACAAACGTAGTGTTGGGATCTGTTGGAGACTGGGATGGGAACAAGTTCA
TTTACTTAGGGGTCAGAGAGTCTCGACCAGAGGAGGCCATTCCCAGTCCTAATCAGCACCTTCCAGAGACAAGGC
TGCAGGCCCTGTGAAATGAAAGCCAAGCAGGAGCCTTGGCTCCTGAGCATCCCCAAAGTGTAACGTAGAAGCCTT
GCATCCTTTTCTTGTGTAAAGTATTTATTTTTGTCAAATTGCAGGAAACATCAGGCACCACAGTGCATGAAAAAT
CTTTCACAGCTAGAAATTGAAAGGGCCTTGGGTATAGAGAGCAGCTCAGAAGTCATCCCAGCCCTCTGAATCTCC
TGTGCTATGTTTTATTTCTTACCTTTAATTTTTCCAGCATTTCCACCATGGGCATTCAGGCTCTCCACACTCTTC
ACTATTATCTCTTGGTCAGAGGACTCCAATAACAGCCAGGTTTACATGAACTGTGTTTGTTCATTCTGACCTAAG
GGGTTTAGATAATCAGTAACCATAACCCCTGAAGCTGTGACTGCCAAACATCTCAAATGAAATGTTGTGGCCATC
AGAGACTCAAAAGGAAGTAAGGATTTTACAAGACAGATTAAAAAAAAATGGTTTTGTCCAAAATATAGTTGTTGT
TGATTTTTTTTTAAGTTTTCTAAGCAATATTTTTCAAGCCAGAAGTCCTCTAAGTCTTGCCAGTACAAGGTAGTC
TTGTGAAGAAAGTTGAATACTGTTTTGTTTTCATCTCAAGGGGTTCCCTGGGTCTTGAACTACTTTAATAATAA
CTAAAAAACCACTTCTGATTTTCCTTCAGTGATGTGCTTTTGGTGAAAGAATTAATGAACTCCAGTACCTGAAAG
TGAAAGATTTGATTTTGTTTCCATCTTCTGTAATCTTCCAAAGAATTATATCTTTGTAAATCTCTCAATACTCAA
CCTACTGTAAGTACCCAGGGAGGCTAATTTCCTTAAAAAAAAAAAATCTATCCATCTACTTCTCTCTTACCTGAT
TTATGTGTTAGAATAAATTCATGAAATTCGATTCCAAGCATACGAAAGATGCCTAAAGTTGATTCTATGCTCCTT
AGATCCAGACAGAATAATGAGTACAGGTTTATGAAATTCTAAAAGTTTCTGTCGTCTTTAAAAAGGAACGTGCAG
TATATTTCTATCTGGCTGTTTAGATAACCCTTTCCTTGTATTAATTGTGAGCACGGAGCTCACTGGTGGGGGAGG
TTCTGAAACTCTCTGCCCTCCTGTGGTTGAATGAAGATGTTGCAAGACTTGCACAAAGGAGGTTATTCTTCTGAC
AGCATCAACTTTTAGAGATGGTTCTTTTTCATCTTTCCAATTCAGTTACTTGACAGTCTCCTTCCCCAGTATGCT
GAAGTTTGTTAAGAGTCACCAGTAATTGTGCTTTTCAGACAGTAGTGCAGCTTCAAAATCGAGGCCATCACTGGG
CTGATGGGCTGGGAGAACCTTGCCATGTGCCTGCCTGTTTCCTGCCCCCTTAGTCACTGCCCATTTCCTGCCCCC
TTGGTCGCTGACACACCTTCACCCAAAGTGCCATGGTTCTGATGGTGGCAGTTCCATCTCCCTGACATCAGGAAG
CTTTTCTCGATCAGAGCAGAGCGGGGCCTGCCTGCCCTCGTGTCACTGGATTTCTTTCTCTTATAATCAGCTGAA
ACAGAGTTCTCAAAGAACAGTAAACTCAGGTTCAGAGGTATTATGGAATAAGAATGGTTTCATAGTTTGGCTTTT
CTATATAATTCCTCCCTCTCAAACTGAAATATTCATTTTTTTAGTGGAGTATTTGACTAGAGAGAAGGTAAGGCA
GAAATACAGTCTACACTGGCTTTTAAAAATGTAAAGCCAATTTCCAACCGGACCCCAAATAGTACAGGTTGAACA
TTCCGTTCCAACAATCCAAAACCCCAAATGCTCCAAAATCTTAAACTTTGAGTTCCAGCATTCCGTCAGAAGTGG
AAAATTTTACACCTGACCTCATTTGACAGGTGGCAGTTACAGTGCAATCAAAACTTTGTTCCATGCCCAAGATTA
TTAAAAATATTGGATAAAATTACCTTCAAGCTATGTTGTATAAGGTGTATATAAAACAAATGAATTTTGTGTTTA
GACTTGGGTCTACTCCCAAGATACCTCATTATATATATACAAAAATCCCCAAATCCAAAAACATTTGAAACACTT
CTGGTCCCACACATTTTGGATAAGGGATATTTGACCTATATCTAATTATATAATAAGAAAAATGTATTTTCTTTT
TTTTTTTTTTTTTGAGATGGAGTTTCACTCTTGTTGTCGCCCAGGCTGCAATGGCACAATCTTGGCTTACTACAA
CCTCCGCCTCCCTAGTTCAAGGGATTCTCCTGCCTCAGCCTCCCAGGTAGCTGGGATTACAGGCATGTGCCACCA
TGCCTGGCTAATTTTGTATTTTTAGTAGAGACGGGGTTTCGCCATGTTGGTCAGACTGGTCTTGAACTCCTGACC
TCAGGTGATCCGCCCGCCTCAGCCTCCCAACGTGCTGGGATTACAGGTGTGAGCCACCGTACCTGGCAGAAAATG
TACTTTCTTTCTCAGAAATACTTTTAAAAAAAATTGAAGGGTGAGGAGAAAACATCTTGGAGAAGAGGACCCAT
TAAAACTTTAAATATCTGTGGGAACCATTTTTCCTGATTTTCCCTTTTTTAACATCATGGCAAAGATGGGTTTTT
TTCCAACAAAATTTAATTTAATATCTTTCCACTTGAAGATTTTAGGTTTGTTTTCAATACTTAATGAATATAAAA
CTAAAGGAGAAAAGCCAACCTGAAATAATTTAAACTTTATATGAACATTTCGATAAGAGTTTGTGGATTTTTTCT
GTAGATAATATATTTGATCCAGAACTCAAGTGCATGGAAACATGATTTTGATTTTTAAAATCTAAAAAAAAAAAA
AATTAAAATCATGCTTCCCTCTATTGCAGTATCAGTTATTTAGTCACAGAATGGTATTTTATGTAAATTAAAATT
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FIGURE 138B

AGGTGAATGCAATGCAGGTAACTGGTTTTGGAATGGGAATGTGCAGTGCTTTATGTTTGGGGAGTTGGAGCAGGG
TATCTTTTCATCAATTAGAAGGAAAGTTTGAAACTTCTGATTACCTTTATGTTGGTTTCTCTTATTATTTGTCTC
TTGCTAGATCTGCTAAACCAACCCAGCTTGCTCAGAGATCTCATATTGAAGCAACATACAGGCAATCCACATCTT
TCTTTCCCTTTGAAGTATAGTCATTGGATGGGATGAGGGACAGGGCCTGTTGGGTTCACAGGGCCTTGCACTGCA
TGGGCACATACTTAAAAGCTCTTGTGCATGGAATCCCTGTCTGTTAGCCACAGGCCTCTTTAGCTCTATACATTC
AAAATAACTACTGTAGTAGAAAATAGATAAGCTTCAGCTGAGTTGGCTTTTGATAGTGGAAAAAAAACAAAATTT
GACTTTTTATGGCCAAAATTCCTTGTTGACAGCTGTGATGTTCTAATATGATTTGGGAATATGTCAGTCTACAGA
ACCTGCATCCTGTAAAAACACCTTTGGGGTAGACGATAAAAGTCATTTTTAAGGCAAATACTTACCATGTGACTT
TTTATTACCAAATGCATCAGTAGTGGAGCTGGTATGTTGTTTCATAGGATGGAAACATTAGAAGTCCAGAGAAAA
ATAAATTTTAAAAAAAGGTGGAAAAGTTACGGCAAACCTGAGATTTCAGCATAAAATCTTTAGTATGAAGTGAGA
GAAAGAAGAGGGAGGCTGGTTCTGTTGCTCGTATCAATAGGTTATCTGTGTCCCTCATCTTGGTGTTACAGTGTT
ATTTCTGTCAGTATTATGAATATGTGGTTGACCCATCCTGTCAAATGTACCAACATTTTCGAAAGAATTCATTCA
AATCTCTTATGCCAACAGAAAAGTTCCTTCTTGTTAATATCTCTTTACCTCAGTCCTACATTTTGATTCTCTGG
AGGAGATTTTAGCTTGTCTTAAAAAGCCAAATTTGGAGTCATCAAGCCTGCTGAACCTGATGGGGCAGCTTTTTG
AACAGCTTTCTGGAAGTAAGAACTTCAGTTGAAAAGCCCTTTGATCGCTTCAGCCCGGGACATGCCCTTCAGATG
GCTTATTCTCAGTAAAGCTTTATGTAGACTGTGACACTGTATATGTGTGACTCGTACAACTTTGACGTGTTTCTG
AAGTGGTTTAATCGTATTTGTTATTAGCTTCTTTGTGGAAATGCAATTTTTATACTAAAAACATTGCTTATTTGC
AATGCAATATGTTATAAATTTGTTGTTTATATTACTGGTATTAGTCTTAGCCTAATGAACCTAATTATTTTTCTT
TCTGTATTCTTTGCTTCCTCAAATAGCATCTGCAGCAATTGGAATGAGAAATCCAGATATGTGTTTCAAGTAGTA
CATTGCCTGAATCACAAATCACTTGATCACAGTATTGTATATAATCCCTGATCCTATTTGTTTCATTTTATTGTA
AATTCCCATTTGCATCAAAACCTAATGATAGTGATTGGTAAGTAAAAACAAATGGTGTATTGCTTTTCATACAAG
TGTTTTCACAAAAGCCATTTGCCTAGGCAGCAAAAAATATTAATTTGTT

FIGURE 139

CTGAAG**ATG**GCGGCTGCTGTAGGACGGTTGCTCCGAGCGTCGGTTGCCCGACATGTGAGTGCCATTCCTTGGGGC
ATTTCTGCCACTGCAGCCCTCAGGCCTGCTGCATGTGGAAGAACGAGCTTGACAAATTTATTGTGTTCTGGTTCC
AGTCAAGCAAAATTATTCAGCACCAGTTCCTCATGCCATGCACCTGCTGTCACCCAGCATGCACCCTATTTTAAG
GGTACAGCCGTTGTCAATGGAGAGTTCAAAGACCTAAGCCTTGATGACTTTAAGGGGAAATATTTGGTGCTTTTC
TTCTATCCTTTGGATTTCACCTTTGTGTGTCCTACAGAAATTGTTGCTTTTAGTGACAAAGCTAACGAATTTCAC
GATGTGAACTGTGAAGTTGTCGCAGTCTCAGTGGATTCCCACTTTAGCCATCTTGCCTGGATAAATACACCAAGA
AAGAATGGTGGTTTGGGCCACATGAACATCGCACTCTTGTCAGACTTAACTAAGCAGATTTCCCGAGACTACGGT
GTGCTGTTAGAAGGTTCTGGTCTTGCACTAAGAGGTCTCTTCATAATTGACCCCAATGGAGTCATCAAGCATTTG
AGCGTCAACGATCTCCCAGTGGGCCGAAGCGTGGAAGAAACCCTCCGCTTGGTGAAGGCGTTCCAGTATGTAGAA
ACACATGGAGAAGTCTGCCCAGCGAACTGGACACCGGATTCTCCTACGATCAAGCCAAGTCCAGCTGCTTCCAAA
GAGTACTTTCAGAAGGTAAATCAG**TAG**ATCACCCATGTGTATCTGCACCTTCTCAACTGAGAGAAGAACCACAGT
TGAAACCTGCTTTTATCATTTTCAAGATGGTTATTTGTAGAAGGCAAGGAACCAATTATGCTTGTATTCATAAGT
ATTACTCTAAATGTTTTGTTTTTGTAATTCTGGCTAGGACCTTTTAAACATGGTTAGTTGCTAGTACAGGAATCG
TTTATTGGTAACATCTTGGTGGCTGGCTAGCTAGTTTCTACAGAACATAATTTGCCTCTATAGAAGGCTATTCTT
AGATCATGTCTCAATGGAAACACTCTTCTTTCTTAGCCTTACTTGAATCTTGCCTATAATAAAGTAGAGCAACAC
ACATTGAAAGCTTCTGATCAACGGTCCTGAAATTTTCATCTTGAATGTCTTTGTATTAAACTGAATTTTCTTTTA
AGCTAACAAAGATCATAATTTTCAATGATTAGCCGTGTAACTCCTGCAATGAATGTTTATGTGATTGAAGCAAAT
GTGAATCGTATTATTTTAAAAAGTGGCAGAGTGACTTAACTGATCATGCATGATCCCTCATCCCTGAAATTGAGT
TTATGTAGTCATTTTACTTATTTTATTCATTAGCTAACTTTGTCTATGTATATTCTAGATATTGATTAGTGTAA
TCGATTATAAAGGATATTTATCAAATCCAGGGATTGCATTTTGAAATTATAATTATTTTCTTTGCTGAAGTATTC
ATTGTAAAACATACAAATAACATATTTAAACAAAAAAAAAA

FIGURE 140

MAAAVGRLLRASVARHVSAIPWGISATAALRPAACGRTSLTNLLCSGSSQAKLFSTSSSCHAPAVTQHAPYFKGT
AVVNGEFKDLSLDDFKGKYLVLFFYPLDFTFVCPTEIVAFSDKANEFHDVNCEVVAVSVDSHFSHLAWINTPRKN
GGLGHMNIALLSDLTKQISRDYGVLLEGSGLALRGLFIIDPNGVIKHLSVNDLPVGRSVEETLRLVKAFQYVETH
GEVCPANWTPDSPTIKPSPAASKEYFQKVNQ

FIGURE 141

ACTTGGCCTTACACTCCGCTCGGCTCACC**ATG**TGTCACTCTCGCAGCTGCCACCCGACCATGACCATCCTGCAGG
CCCCGACCCCGGCCCCCTCCACCATCCCGGGACCCCGGCGGGGCTCCGGTCCTGAGATCTTCACCTTCGACCCTC
TCCCGGAGCCCGCAGCGGCCCCTGCCGGGCGCCCCAGCGCCTCTCGCGGGCACCGAAAGCGCAGCCGCAGGGTCT
CTCTACCCTCGAGTGGTGAGTATCGCCGAAGTGGGCATTCGCGGTGTGCGCTGCCCTGGAGTCACTGGGGAACGA
CCCGACTCCAGAGCCTCGACCTGACCTGTCTCCTGTTTTGTCTCCCCTTAGTCCGGCGCCAGCTGCCAGTCGAGG
AACCGAACCCAGCCAAAAGGCTTCTCTTTCTGCTGCTCACCATCGTCTTCTGCCAGATCCTGATGGCTGAAGAGG
GTGTGCCGGCGCCCCTGCCTCCAGAGGACGCCCCTAACGCCGCATCCCTGGCGCCCACCCCTGTGTCCCCCGTCC
TCGAGCCCTTTAATCTGACTTCGGAGCCCTCGGACTACGCTCTGGACCTCAGCACTTTCCTCCAGCAACACCCGG
CCGCCTTC**TAA**CTGTGACTCCCCGCACTCCCCAAAAAGAATCCGAAAAACCACAAAGAAACACCAGGCGTACCTG
GTGCGCGAGAGCGTATCCCCAACTGGGACTTCCGAGGCAACTTGAACTCAGAACACTACAGCGGAGACGCCACCC
GGTGCTTGAGGCGGGACCGAGGCGCACAGAGACCGAGGCGCATAGAGACCGAGGCACAGCCCAGCTGGGCTAGGC
CGGTGGGAAGGAGAGCGTCGTTAATTTATTTCTTATTGCTCCTAATTAATATTTATATGTATTTATGTACGTCCT
CCTAGGTGATGGAGATGTGTACGTAATATTTATTTTAACTTATGCAAGGGTGTGAGATGTTCCCTCTGCTGTAAA
TGCAGGTCTCTTGGTATTTATTGAGCTTTGTGGGACTGGTGGAAGCAGGACACCTGGAACTGCGGCAAAGTAGGA
GAAGAAATGGGGAGGACTCGGGTGGGGGAGGACGTCCCGGCTGGGATGAAGTCTGGTGGTGGGTCGTAAGTTTAG
GAGGTGACTGCATCCTCCAGCATCTCAACTCCGTCTGTCTACTGTGTGAGACTTCGGCGGACCATTAGGAATGAG
ATCCGTGAGATCCTTCCATCTTCTTGAAGTCGCCTTTAGGGTGGCTGCGAGGTAGAGGGTTGGGGGTTGGTGGGC
TGTCACGGAGCGACTGTCGAGATCGCCTAGTATGTTCTGTGAACACAAATAAAATTGATTACTGTCTGC

FIGURE 142

MCHSRSCHPTMTILQAPTPAPSTIPGPRRGSGPEIFTFDPLPEPAAAPAGRPSASRGHRKRSRRVSLPSSGEYRR
SGHSRCALPWSHWGTTRLQSLDLTCLLFCLPLVRRQLPVEEPNPAKRLLFLLLTIVFCQILMAEEGVPAPLPPED
APNAASLAPTPVSPVLEPFNLTSEPSDYALDLSTFLQQHPAAF

FIGURE 143A

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ATGGCAGAAGGTGTGAATGAGCCTTGTTTCCCGGGGGACTGTGGCATATTTGTCACTAAAGTGGACAAAGGAAGC
ATTGCTGATGGCCGCTTAAGGGTCAATGACTGGCTGCTGAGAATCAACGATGTGGACCTCATCAACAAGGACAAG
AAGCAGGCCATCAAGGCGCTCCTCAATGGGGAGGGGGCCATCAACATGGTCGTGCGGCGGAGGAAGTCCCTGGGT
GGGAAGGTGGTCACGCCGCTGCACATCAACCTCAGTGGACAGAAAGACAGTGGCATCAGTCTGGAGAATGGAGTG
TATGCTGCCGCTGTGCTGCCTGGAAGCCCTGCCGCTAAAGAAGGGTCCCTTGCTGTGGGAGACAGGATCGTTGCG
ATCAATGGCATTGCACTGGACAACAAGTCTCTGAATGAATGTGAATCTCTGCTGCGGAGCTGCCAGGACTCCCTG
ACCCTGTCCCTCCTGAAGGTATTCCCTCAGAGCTCCTCGTGGAGTGGCCAGAACATTTTTGAAAATATCAAAGAC
TCTGATAAGATGCTGAGTTTTCGAGCCCATGGCCCGGAGGTCCAGGCTCATAACAAACGGAACTTGATACAGCAC
AATAACTCCACGCAGACAGACATCTTCTACACGGACAGGCTGGAAGACAGGAAGGAGCCAGGCCCCCCAGGAGGC
AGCAGCTCCTTTCTGCATAAGCCATTCCCTGGGGGACCCTTGCAGGTCTGCCCCCAGGCCTGTCCCAGTGCCTCT
GAGCGTAGCCTGAGCTCCTTCCGCTCAGATGCCTCTGGGGACCGTGGCTTTGGGCTGGTGGACGTGCGTGGCCGG
CGGCCACTGCTGCCCTTTGAGACCGAGGTGGGCCCCTGTGGGGTTGGGGAGGCCTCCCTGGACAAGGCAGACTCT
GAAGGCTCCAACAGCGGCGGGACCTGGCCCAAGGCCATGCTCAGCTCCACGGCAGTGCCTGAGAAGCTCTCTGTT
TATAAAAAGCCAAAGCAAAGAAAGTCCATCTTTGACCCTAACACTTTCAAACGCCCCCAGACACCCCCCAAAATA
GACTACCTGCTTCCAGGTCCTGGGCCTGCTCACTCTCCCCAGCCCTCCAAGAGGGCGGGGCCTCTGACACCCCCA
AAACCTCCCAGAAGGAGCGACTCCATTAAGTTCCAGCACAGGCTGGAGACTAGCTCCGAGTCAGAAGCCACTCTG
GTGGGCAGCTCCCCATCCACTAGTCCCCCGAGCGCCCTGCCCCCTGACGTGGACCCCGGGGAGCCCATGCACGCA
TCACCCCCTCGCAAGGCCAGGGTCCGCATTGCTTCCAGCTACTACCCTGAAGGAGATGGGGACTCCTCCCACCTG
CCGGCCAAGAAATCCTGTGATGAGGACCTCACCTCCCAGAAGGTGGATGAGCTGGGGCAGAAGCGTCGCCGGCCA
AAATCTGCTCCCAGTTTTCGGCCGAAGCTTGCTCCAGTAGTGATTCCTGCTCAGTTCCTGGAGGAACAGAAGTGT
GTCCCGGCCAGTGGAGAACTCTCCCCGGAGCTCCAGGAGTGGGCACCTTACTCGCCTGGGCATTCCAGCCGGCAC
AGCAACCCCCCGCTATACCCTAGCAGGCCGTCTGTGGGTACTGTTCCCCGGAGTTTGACCCCCAGCACCACTGTG
AGCTCCATCCTGCGGAACCCCATCTACACTGTGCGCAGTCACAGGGTCGGCCCCTGCAGCTCTCCACCTGCGGCC
CGAGATGCTGGCCCCCAGGGTTTGCATCCCAGTGTCCAGCACCAGGGACGCCTGAGCCTGGACCTGAGCCACAGG
ACCTGCAGCGACTACTCCGAGATGAGAGCCACCCATGGGTCCAACTCACTGCCCTCCAGCGCCCGCCTGGGTTCT
TCGAGTAACTTGCAGTTCAAGGCGGAACGCATTAAAATCCCATCAACACCAAGATATCCGCGGAGTGTCGTGGGC
TCCGAGAGAGGTTCAGTGTCACATTCTGAATGCAGCACTCCTCCACAGTCACCCCTGAACATCGACACCCTGTCC
TCTTGTAGCCAGTCCCAGACCTCAGCCTCCACATTGCCCAGAATCGCTGTCAACCCCGCGTCCCTCGGGGAGCGG
AGAAAGGACAGGCCTTATGTGGAGGAGCCACGCCACGTGAAGGTGCAGAAGGGCTCAGAGCCGCTGGGCATCTCC
ATCGTGAGTGGAGAGAAGGGCGGCATCTACGTCTCCAAGGTGACCGTGGGGAGCATCGCTCACCAGGCTGGCCTC
GAGTATGGGGATCAGTTACTGGAGTTCAACGGCATAAACCTGCGGAGCGCCACGGAGCAGCAGGCGCGGCTCATC
ATCGGGCAGCAGTGTGATACCATCACCATCCTGGCCCAGTACAACCCCCACGTGCACCAGCTCAGCAGCCACTCC
CGGTCCAGCTCACACCTGGACCCTGCCGGTACCCACTCCACTCTCCAGGGCAGTGGCACCACCACCCCGGAGCAT
CCATCTGTCATCGACCCACTGATGGAGCAGGACGAGGGGCCTAGCACCCCCCCAGCCAAGCAGAGCAGCTCCAGG
ATTGCGGGAGATGCCAACAAGAAGACCCTGGAGCCACGCGTTGTCTTCATCAAAAAGTCCCAGCTGGAGCTTGGG
GTGCACTTGTGTGGTGGGAACCTGCATGGGGTGTTTGTGGCCGAGGTGGAGGATGACAGTCCTGCCAAGGGTCCT
GACGGCCTCGTGCCAGGGGACCTCATCCTGGAGTATGGCAGCCTGGACGTGCGGAACAAGACAGTGGAGGAAGTC
TATGTGGAGATGCTGAAGCCCAGGGATGGCGTCCGCCTGAAGGTGCAGTACCGCCCTGAGGAGTTCACGAAGGCC
AAGGGCCTGCCTGGTGACAGCTTCTACATCAGGGCCCTGTACGACCGGCTGGCAGATGTGGAGCAAGAGTTGAGC
TTTAAGAAGGACGACATCCTCTACGTGGATGACACCTTACCCCAGGGCACGTTCGGGTCCTGGATGGCTTGGCAG
CTGGACGAGAATGCCCAGAAGATCCAGCGCGGGCAGATTCCCAGCAAATATGTGATGGACCAAGAATTCTCCAGG
AGGCTCAGCATGTCTGAAGTCAAAGATGACAATAGCGCCACAAAGACGCTGTCAGCGGCTGCACGCCGGTCCTTT
TTTCGGAGGAAACACAAGCACAAACGCAGCGGGTCCAAGGACGGGAAAGACCTGCTCGCCTTGGATGCCTTTTCC
AGTGACTCCATTCCACTCTTTGAAGATTCGGTGAGCCTGGCCTATCAGCGGGTCCAGAAGGTGGACTGCACCGCT
CTGAGGCCTGTCCTGATTCTGGGGCCTTTGCTGGACGTGGTGAAGGAGATGCTGGTGAATGAGGCTCCTGGCAAG
TTCTGCAGATGTCCCCTTGAGGTGATGAAGGCCTCCCAGCAGGCCATTGAGCGGGGTGTCAAAGATTGCCTGTTT
GTCGACTATAAGCGGAGAAGCGGCCATTTCGATGTGACCACTGTGGCGTCAATAAAGGAGATCACAGAAAAGAAC
CGACACTGCCTCCTGGACATTGCTCCGCACGCTATTGAGCGGCTCCACCACATGCACATCTACCCCATTGTCATC
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FIGURE 143B

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TTCATCCACTACAAGAGCGCCAAGCACATCAAGGAGCAGAGAGACCCCATCTACCTGAGGGACAAGGTGACTCAG
AGGCATTCCAAAGAGCAGTTTGAGGCGGCGCAGAAGCTTGAGCAGGAGTACAGCAGGTACTTCACAGGGGTCATC
CAGGGAGGAGCCCTGTCAAGCATTTGCACTCAGATCTTGGCAATGGTCAATCAAGAACAAAATAAAGTCCTGTGG
ATTCCAGCCTGCCCGCTCTAGGAGAATGCTGTGCTGTGGATGACTGCAGCTGGCCGCCTGAGGGGACGCCAGACT
CAGCTCTTTTCTAGCGACTGAAAGTAGAAGTCTGTCTGTCTATGAACATGCGGGGGAAGGATCCGGAACCAGGAC
CCAGAAGCACCTCCTTTGTAGACAGAGGGCCACGGCTGCGTGCGATCCAGGCCCAGGCCCACACACTCTGCCCGT
GTCACACGTGTGCTTTAACACAAAACAGATAACACTAAAGACGGGTCAGCACCCACCTTTCTTTAGCCAGCTGA
TCAGAGATGCTGCAAAGAGAACCTTTCGGATCACTCGTTTACAAGCCTTTTCTAAGTATTTGGTGGTTTATGTTT
ACTTGAACGGCTCCATGTTGCCGGTGCCCAGCCCCTGTCCCCTCTGTCAACCCCCTGTCGCTTTGGTGTTGGTTT
CGTTCCCGTCTTCAGCAAAACGACCTTGGAACCTCAATGGGGGCTGCTTTGCTTTGGGAGGTTCTTGTTGGTGGG
ACCAGAGCTTTGACAAACCTCCTGCTCCTTGGTGGCACCTCTCCTGGAAGGACATCACAACTCCAGGTGCTCAGA
CTGCCTGTGGCAGCAGAACCAGTGCCTTTGGCATTTTCCTCCCACAATGGGGAAGGTGACTTTGGCATTCTTACA
AACTCGTCTCTCGGCCTTTCTCTCCTGCCTTCCACAGCCTCTCGTTTCTCCTCCATCTGTGCTTATTACTTGAGG
ACTGTGTCTGCTCCGTGAGAGCTGCGTGGGCAGGGCTGCAGTGGGGTCCAGGTGGTGTTCAGCTGTGCTGATGCC
TGCCATTGGGTCCTCCTTAGGCTCTGTAAGTCGTGACAGCCTTCATCAGTGCAATGTTTGCAGGGTAATTCTTAA
ACTTTTTAGAGGGTGGCAGGTACATCAGTTCTTTTTGATATGAAAACATTCATGTTTCAGACATTGAATTGAGAG
CTTTTAGGGGAAGCATAATGGTTATTGTCACTATCAACAGTCTAAAAAGAAAAACTGAGGTCTTTTTAATCTTGA
TTACAGCACTCACGGCATGCACCCTACTCAGTGTGGGTGTCTTCGTTTGGGGGCTTTTTTTTTTTTGCACTTCT
GAGGCTAGATATGTCTGGCTGAAGATTTGATGTGGTTCCTCCTTAAGCTATGCGTCCTGTTAATAATAGGTACTG
TACTGGGCTCTGTGTAAGTGTCGTTGGGGTAGGACCTATATTTTAATACTGTTCCTAACATTTCATTTTACTAGC
GAGAAATCTTTGATTTCATTTTATTCTTTGTAATTCTAGACACTAGATTGTAGTTTAGCCATAACTGATGTTTTT
TAAAAAGGGATATATTTTCTTGCACAGTTGTTCAAAAAAGAGACAAGTTTCAGTCCTCAATGCTGTCCTTTGTTT
TACAGGTACAAGTTTTCTAGCTCAGACAAACTATGAAAAACTGTAGACTATTCTCAAGGTATTAACTCGCAGACC
CTCTGGGGGTAGGGGCTGTTTTCTAAGTTACAGGCAGAGTGGGACTGAGATGGTACAGTGTGCACAGACAGGTAC
TGAGCTGACAGACTGGGATTTTCTGTACTAAAATGTTACTTTGTATCAAAAGTTAAACAGGCTTTAGTACAACAA
ATAAAGGTCAATTTCTGT
```

FIGURE 144

CGCAACGCCGGTGCCTGAGGAGCG**ATG**CCGAGGGAAATCATCACCCTACAGTTGGGCCAGTGCGGCAATCAGATT
GGGTTCGAGTTCTGGAAACAGCTGTGCGCCGAGCATGGTATCAGCCCCGAGGCGATCGTGGAGGAGTTCGCCACC
GAGGGCACTGACCGCAAGGACGTCTTTTTCTACCAGGCAGACGATGAGCACTACATCCCCCGGGCCGTGCTGCTG
GACTTGGAACCCCGGGTGATCCACTCCATCCTCAACTCCCCCTATGCCAAGCTCTACAACCCAGAGAACATCTAC
CTGTCGGAACATGGAGGAGGAGCTGGCAACAACTGGGCCAGCGGATTCTCCCAGGGAGAAAAGATCCATGAGGAC
ATTTTTGACATCATAGACCGGGAGGCAGATGGTAGTGACAGTCTAGAGGGCTTTGTGCTGTGTCACTCCATTGCT
GGGGGGACAGGCTCTGGACTGGGTTCCTACCTCTTAGAACGGCTGAATGACAGGTATCCTAAGAAGCTGGTGCAG
ACATACTCAGTGTTTCCCAACCAGGACGAGATGAGCGATGTGGTGGTCCAGCCTTACAATTCACTCCTCACACTC
AAGAGGCTGACGCAGAATGCAGACTGTCTGGTGGTGCTGGACAACACAGCCCTGAACCGGATTGCCACAGACCGC
CTGCACATCCAGAACCCATCCTTCTCCCAGATCAACCAGCTGGTGTCTACCATCATGTCAGCCAGCACCACCACC
CTGCGCTACCCTGGCTACATGAACAATGACCTCATCGGCCTCATCGCCTCGCTCATTCCCACCCCACGGCTCCAC
TTCCTCATGACCGGCTACACCCCTCTCACTACGGACCAGTCAGTGGCCAGCGTGAGGAAGACCACGGTCCTGGAT
GTCATGAGGCGGCTGCTGCAGCCCAAGAACGTGATGGTGTCCACAGGCCGAGACCGCCAGACCAACCACTGCTAC
ATCGCCATCCTCAACATCATCCAGGGAGAGGTGGACCCCACCCAGGTCCACAAGAGCTTGCAGAGGATCCGGGAA
CGCAAGTTGGCCAACTTCATCCCGTGGGGCCCCGCCAGCATCCAGGTGGCCCTGTCGAGGAAGTCTCCCTACCTG
CCCTCGGCCCACCGGGTCAGCGGGCTCATGATGGCCAACCACACCAGCATCTCCTCGCTCTTCGAGAGAACCTGT
CGCCAGTATGACAAGCTGCGTAAGCGGGAGGCCTTCCTGGAGCAGTTCCGCAAGGAGGACATGTTCAAGGACAAC
TTTGATGAGATGGACACATCCAGGGAGATTGTGCAGCAGCTCATCGATGAGTACCATGCGGCCACACGGCCAGAC
TACATCTCCTGGGGCACCCAGGAGCAG**TGA**GTCCCCCAGGACAGGGGACCCTCATCTGCCTTACTGGTTGGCCCA
AGCCCTGCCTGACTGACCACCCCCTCAGAGCACAGATCAGGGACCTCACGCATCTCTTTCTCATATACATGGACT
CTCTGTTGGCCTGCAAACACATTTACTTCTCCTCTTATGAGACTATTTATCTTTAATAAAGCACTGGG

FIGURE 145

MPREIITLQLGQCGNQIGFEFWKQLCAEHGISPEAIVEEFATEGTDRKDVFFYQADDEHYIPRAVLLDLEPRVIH
SILNSPYAKLYNPENIYLSEHGGGAGNNWASGFSQGEKIHEDIFDIIDREADGSDSLEGFVLCHSIAGGTGSGLG
SYLLERLNDRYPKKLVQTYSVFPNQDEMSDVVVQPYNSLLTLKRLTQNADCLVVLDNTALNRIATDRLHIQNPSF
SQINQLVSTIMSASTTTLRYPGYMNNDLIGLIASLIPTPRLHFLMTGYTPLTTDQSVASVRKTTVLDVMRRLLQP
KNVMVSTGRDRQTNHCYIAILNIIQGEVDPTQVHKSLQRIRERKLANFIPWGPASIQVALSRKSPYLPSAHRVSG
LMMANHTSISSLFERTCRQYDKLRKREAFLEQFRKEDMFKDNFDEMDTSREIVQQLIDEYHAATRPDYISWGTQE
Q

FIGURE 146

AGATAACAAGAGTAATCCACAGACTTAAAAC**ATG**AGCTCAGATGCCAGCCAAGGCGTGATTACCACTCCTCCTCC
TCCCAGCATGCCTCACAAAGAGAGATATTTTGACCGCATCAATGAAAATGACCCAGAATACATTAGGGAGAGGAA
CATGTCTCCTGATCTACGACAAGACTTCAACATGATGGAGCAGAGGAAACGAGTTACTCAGATCCTGCAAAGTCC
TGCCTTTCGGGAAGACTTGGAATGCCTTATTCAAGAACAGATGAAGAAAGGCCACAACCCAACTGGATTACTAGC
ATTACAGCAGATTGCAGATTACATCATGGCCAATTCTTTCTCGGGTTTTTCTTCACCTCCTCTCAGTCTTGGCAT
GGTCACACCTATCAATGACCTTCCTGGTGCAGATACATCCTCATATGTGAAGGGAGAAAAACTTACTCGCTGTAA
ACTTGCCAGCCTGTACAGACTTGTAGACTTGTTTGGATGGGCACACCTGGCAAATACCTATATCTCAGTAAGAAT
AAGTAAGGAGCAAGACCACATTATAATAATTCCCAGAGGCCTATCTTTTTCTGAAGCTACAGCCTCCAATTTGGT
GAAAGTCAATATAATAGGAGAAGTGGTTGACCAGGGAAGTACCAATTTGAAAATTGACCATACAGGATTCAGTCC
CCATGCTGCAATCTATTCAACACGTCCTGATGTTAAGTGTGTCATACACATCCATACCCTTGCAACAGCAGCTGT
ATCCTCCATGAAATGTGGGATCCTTCCAATTTCTCAAGAGTCTCTTCTTCTGGGAGATGTTGCCTATTATGACTA
CCAAGGGTCACTTGAAGAACAGGAGGAGAGAATTCAACTGCAGAAGGTTCTGGGACCAAGTTGTAAGGTGCTGGT
ACTCAGGAATCATGGTGTGGTTGCACTTGGAGAAACATTAGAGGAGGCTTTTCATTATATTTTAATGTGCAACT
AGCCTGTGAGATTCAGGTGCAGGCCCTAGCAGGTGCAGGTGGAGTAGACAATCTCCATGTACTGGACTTTCAGAA
GTATAAAGCTTTCACTTACACTGTAGCAGCGTCTGGTGGAGGAGGTGTGAATATGGGTTCCCATCAAAAATGGAA
GGTTGGCGAAATTGAGTTTGAAGGGCTTATGAGGACTCTGGACAACTTGGGGTATAGAACAGGCTATGCTTACAG
GCATCCTCTCATTCGAGAGAAGCCTAGGCACAAGAGTGATGTGGAAATCCCAGCAACTGTGACTGCTTTTTCCTT
TGAAGACGATACAGTGCCACTCTCTCCTCTCAAATACATGGCACAGAGGCAACAGCGTGAAAAAACAAGATGGCT
GAACTCACCAAATACTTACATGAAAGTGAATGTGCCTGAGGAGTCTCGGAACGGAGAAACCAGTCCCCGAACCAA
AATCACGTGGATGAAAGCAGAAGACTCATCTAAAGTTAGTGGTGGAACACCTATCAAAATTGAAGATCCAAATCA
GTTTGTTCCTTTAAACACAAACCCGAATGAGGTACTAGAAAAGAGAAATAAGATTCGGGAACAAAATCGATATGA
CTTGAAAACAGCAGGACCACAATCTCAGTTGCTTGCTGGAATTGTTGTGGATAAGCCACCTTCTACTATGCAATT
TGAAGATGATGATCATGGCCCACCAGCTCCTCCTAACCCATTTAGTCATCTCACAGAAGGAGAACTTGAAGAGTA
TAAGAGGACAATCGAACGTAAACAACAAGGCCTAGAAGATGCTGAGCAGGAATTACTCTCAGATGACGCTTCATC
TGTTTCACAAATTCAGTCTCAAACTCAGTCACCGCAAAATGTCCCTGAAAAATTAGAAGAAACCATGAGCTGTT
TTCCAAGAGCTTCATCTCCATGGAAGTGCCTGTCATGGTAGTAAATGGCAAGGATGATATGCATGATGTTGAAGA
TGAGCTTGCTAAGCGAGTGAGTAGGTTAAGCACAAGTACAACCATAGAAAACATCGAGATTACTATTAAGTCTCC
AGAGAAAATCGAAGAAGTCCTGTCACCTGAAGGCTCCCCTTCAAAATCGCCATCCAAGAAAAAGAAGAAATTCCG
CACTCCTTCTTTTCTGAAAAAGAACAAAAAAAAGGAGAAAGTTGAGGCC**TAA**ATAAAGTCTTTTTATAATTATTA
TTATAACAATGTGACATTGCACATCTAAATACCACATTTAAGTTGATCATTAATATGCAATGGTAGATCAGATTG
GGGGATGTAGCAAACTGGACTTTAAGAACTGGAAAGAGGTTTTACAAAAGAAAAACTTTCAGATTCATCTCTCAT
TTTATATGTCCAGAAATGGCTTTGAATTTTAAGCAATTACTAGTTTTAATTAGCTCTGCCCTCATGAAGTATTAT
TATAATTCACCATAAACAGCTATCTGTCTGAATTACTTCAGGCCTTCTCCATAATATCTGTTAGAAAGAAATTGC
CAGTGAGCAAGTGAGAATTTTTATTTCTCAATACCTGCTTCACTTGATAATCATATTATAATTTTTATCATGAT
TATTGACTATATTTTTGGAGTCCCATTGTTTCAGTGGGCATTAACAGAATGCTTTAAAAACTTCTAAGACAAGAA
TCTATAGCATTAGTATACACTGGCACATAATTTTTTAAAAAGTTTTAAGAAAAGATTCATTTGGAATTTTATTCA
CAGTATAAAATTTCCTCACCTGAAGTAACTTTGTTTGCCAAAAAAGTTGTTTAATAAACTATAATTTTTGAAAA
CTTCCTTTTTTATTAGTTTAGAAAGCCCCTTATTTTTCAACAAAGGGGATTTTGTACACATAACATGGGTTATTT
AGTTTAACTCTGGC

FIGURE 147

MSSDASQGVITTPPPPSMPHKERYFDRINENDPEYIRERNMSPDLRQDFNMMEQRKRVTQILQSPAFREDLECLI
QEQMKKGHNPTGLLALQQIADYIMANSFSGFSSPPLSLGMVTPINDLPGADTSSYVKGEKLTRCKLASLYRLVDL
FGWAHLANTYISVRISKEQDHIIIIPRGLSFSEATASNLVKVNIIGEVVDQGSTNLKIDHTGFSPHAAIYSTRPD
VKCVIHIHTLATAAVSSMKCGILPISQESLLLGDVAYYDYQGSLEEQEERIQLQKVLGPSCKVLVLRNHGVVALG
ETLEEAFHYIFNVQLACEIQVQALAGAGGVDNLHVLDFQKYKAFTYTVAASGGGGVNMGSHQKWKVGEIEFEGLM
RTLDNLGYRTGYAYRHPLIREKPRHKSDVEIPATVTAFSFEDDTVPLSPLKYMAQRQQREKTRWLNSPNTYMKVN
VPEESRNGETSPRTKITWMKAEDSSKVSGGTPIKIEDPNQFVPLNTNPNEVLEKRNKIREQNRYDLKTAGPQSQL
LAGIVVDKPPSTMQFEDDDHGPPAPPNPFSHLTEGELEEYKRTIERKQQGLEDAEQELLSDDASSVSQIQSQTQS
PQNVPEKLEENHELFSKSFISMEVPVMVVNGKDDMHDVEDELAKRVSRLSTSTTIENIEITIKSPEKIEEVLSPE
GSPSKSPSKKKKKFRTPSFLKKNKKKEKVEA

FIGURE 148

AGATAACAAGAGTAATCCACAGACTTAAAAC**ATG**AGCTCAGATGCCAGCCAAGGCGTGATTACCACTCCTCCTCC
TCCCAGCATGCCTCACAAAGAGAGATATTTTGACCGCATCAATGAAAATGACCCAGAATACATTAGGGAGAGGAA
CATGTCTCCTGATCTACGACAAGACTTCAACATGATGGAGCAGAGGAAACGAGTTACTCAGATCCTGCAAAGTCC
TGCCTTTCGGGAAGACTTGGAATGCCTTATTCAAGAACAGATGAAGAAAGGCCACAACCCAACTGGATTACTAGC
ATTACAGCAGATTGCAGATTACATCATGGCCAATTCTTTCTCGGGTTTTTCTTCACCTCCTCTCAGTCTTGGCAT
GGTCACACCTATCAATGACCTTCCTGGTGCAGATACATCCTCATATGTGAAGGGAGAAAAACTTACTCGCTGTAA
ACTTGCCAGCCTGTACAGACTTGTAGACTTGTTTGGATGGGCACACCTGGCAAATACCTATATCTCAGTAAGAAT
AAGTAAGGAGCAAGACCACATTATAATAATTCCCAGAGGCCTATCTTTTCTGAAGCTACAGCCTCCAATTTGGT
GAAAGTCAATATAATAGGAGAAGTGGTTGACCAGGGAAGTACCAATTTGAAAATTGACCATACAGGATTCAGTCC
CCATGCTGCAATCTATTCAACACGTCCTGATGTTAAGTGTGTCATACACATCCATACCCTTGCAACAGCAGCTGT
ATCCTCCATGAAATGTGGGATCCTTCCAATTTCTCAAGAGTCTCTTCTTCTGGGAGATGTTGCCTATTATGACTA
CCAAGGGTCACTTGAAGAACAGGAGGAGAGAATTCAACTGCAGAAGGTTCTGGGACCAAGTTGTAAGGTGCTGGT
ACTCAGGAATCATGGTGTGGTTGCACTTGGAGAAACATTAGAGGAGGCTTTTCATTATATTTTTAATGTGCAACT
AGCCTGTGAGATTCAGGTGCAGGCCCTAGCAGGTGCAGGTGGAGTAGACAATCTCCATGTACTGGACTTTCAGAA
GTATAAAGCTTTCACTTACACTGTAGCAGCGTCTGGTGGAGGAGGTGTGAATATGGGTTCCCATCAAAAATGGAA
GGTTGGCGAAATTGAGTTTGAAGGGCTTATGAGGACTCTGGACAACTTGGGGTATAGAACAGGCTATGCTTACAG
GCATCCTCTCATTCGAGAGAAGCCTAGGCACAAGAGTGATGTGGAAATCCCAGCAACTGTGACTGCTTTTTCCTT
TGAAGACGATACAGTGCCACTCTCTCCTCTCAAATACATGGCACAGAGGCAACAGCGTGAAAAAACAAGATGGCT
GAACTCACCAAATACTTACATGAAAGTGAATGTGCCTGAGGAGTCTCGGAACGGAGAAACCAGTCCCCGAACCAA
AATCACGTGGATGAAAGCAGAAGACTCATCTAAAGTTAGTGGTGGAACACCTATCAAAATTGAAGATCCAAATCA
GTTTGTTCCTTTAAACACAAACCCGAATGAGGTACTAGAAAAGAGAAATAAGATTCGGGAACAAAATCGATATGA
CTTGAAAACAGCAGGACCACAATCTCAGTTGCTTGCTGGAATTGTTGTGGATAAGCCACCTTCTACTATGCAATT
TGAAGATGATGATCATGGCCCACCAGCTCCTCCTAACCCATTAGTCATCTCACAGAAGGAGAACTTGAAGAGTA
TAAGAGGACAATCGAACGTAAACAACAAGGCCTAGAAGAAAACCATGAGCTGTTTTCCAAGAGCTTCATCTCCAT
GGAAGTGCCTGTCATGGTAGTAAATGGCAAGGATGATATGCATGATGTTGAAGATGAGCTTGCTAAGCGAGTGAG
TAGGTTAAGCACAAGTACAACCATAGAAAACATCGAGATTACTATTAAGTCTCCAGAGAAATCGAAGAAGTCCT
GTCACCTGAAGGCTCCCCTTCAAAATCGCCATCCAAGAAAAAGAAGAAATTCCGCACTCCTTCTTTTCTGAAAAA
GAACAAAAAAAGGAGAAAGTTGAGGCC**TAA**ATAAAGTCTTTTTATAATTATTATTATAACAATGTGACATTGCA
CATCTAAATACCACATTTAAGTTGATCATTAATATGCAATGGTAGATCAGATTGGGGGATGTAGCAAACTGGACT
TTAAGAACTGGAAAGAGGTTTTACAAAAGAAAAACTTTCAGATTCATCTCTCATTTTATATGTCCAGAAATGGCT
TTGAATTTTAAGCAATTACTAGTTTTAATTAGCTCTGCCCTCATGAAGTATTATTATAATTCACCATAAACAGCT
ATCTGTCTGAATTACTTCAGGCCTTCTCCATAATATCTGTTAGAAAGAAATTGCCAGTGAGCAAGTGAGAATTTT
TATTTCTCAATACCTGCTTCACTTGATAATCATATTATAATTTTTATCATGATTATTGACTATATTTTGGAGT
CCCATTGTTTCAGTGGGCATTAACAGAATGCTTTAAAAACTTCTAAGACAAGAATCTATAGCATTAGTATACACT
GGCACATAATTTTTTAAAAAGTTTTAAGAAAAGATTCATTTGGAATTTTATTCACAGTATAAAATTTCCTCACCT
GAAGTAACTTTGTTTGCCAAAAAAGTTGTTTTAATAAACTATAATTTTTGAAAACTTCCTTTTTATTAGTTTAG
AAAGCCCCTTATTTTTCAACAAAGGGGATTTTGTACACATAACATGGGTTATTTAGTTTAACTCTGGC

FIGURE 149

MSSDASQGVITTPPPPSMPHKERYFDRINENDPEYIRERNMSPDLRQDFNMMEQRKRVTQILQSPAFREDLECLI
QEQMKKGHNPTGLLALQQIADYIMANSFSGFSSPPLSLGMVTPINDLPGADTSSYVKGEKLTRCKLASLYRLVDL
FGWAHLANTYISVRISKEQDHIIIIPRGLSFSEATASNLVKVNIIGEVVDQGSTNLKIDHTGFSPHAAIYSTRPD
VKCVIHIHTLATAAVSSMKCGILPISQESLLLGDVAYYDYQGSLEEQEERIQLQKVLGPSCKVLVLRNHGVVALG
ETLEEAFHYIFNVQLACEIQVQALAGAGGVDNLHVLDFQKYKAFTYTVAASGGGGVNMGSHQKWKVGEIEFEGLM
RTLDNLGYRTGYAYRHPLIREKPRHKSDVEIPATVTAFSFEDDTVPLSPLKYMAQRQQREKTRWLNSPNTYMKVN
VPEESRNGETSPRTKITWMKAEDSSKVSGGTPIKIEDPNQFVPLNTNPNEVLEKRNKIREQNRYDLKTAGPQSQL
LAGIVVDKPPSTMQFEDDDHGPPAPPNPFSHLTEGELEEYKRTIERKQQGLEENHELFSKSFISMEVPVMVVNGK
DDMHDVEDELAKRVSRLSTSTTIENIEITIKSPEKIEEVLSPEGSPSKSPSKKKKKFRTPSFLKKNKKKEKVEA

FIGURE 150

TTTTCCCGCGAAACTCGGCGGCTGAGCGTGGAGGTTCTTGTCTCCCCTGGTTTGTGAAGTGCGGAAAACCAGAGG
CGCAGTC**ATG**TCGGGATTCGACGATCCTGGCATTTTCTACAGCGACAGCTTCGGGGGCGACGCCCAGGCCGACGA
GGGGCAGGCCCGCAAATCGCAGCTGCAGAGGCGCTTCAAGGAGTTCCTGCGGCAGTACCGAGTGGGCACCGACCG
CACGGGCTTCACCTTCAAATACAGGGATGAACTCAAGCGGCATTACAACCTGGGGGAGTACTGGATTGAGGTGGA
GATGGAGGATCTGGCCAGCTTTGATGAGGACCTGGCCGACTACTTGTACAAGCAGCCAGCCGAGCACCTGCAGCT
GCTGGAGGAAGCTGCCAAGGAGGTAGCTGATGAGGTGACCCGGCCCCGGCCTTCTGGGGAGGAGGTGCTCCAGGA
CATCCAGGTCATGCTCAAGTCGGACGCCAGCCCTTCCAGCATTCGTAGCCTGAAGTCGGACATGATGTCACACCT
GGTGAAGATCCCTGGCATCATCATCGCGGCCTCTGCGGTCCGTGCCAAGGCCACCCGCATCTCTATCCAGTGCCG
CAGCTGCCGCAACACCCTCACCAACATTGCCATGCGCCCTGGCCTCGAGGGCTATGCCCTGCCCAGGAAGTGCAA
CACAGATCAGGCTGGACGCCCCAAATGCCCATTGGACCCGTACTTCATCATGCCCGACAAATGCAAATGCGTGGA
CTTCCAGACCCTGAAGCTGCAGGAGCTGCCTGATGCAGTCCCCCACGGGGAGATGCCCAGACACATGCAGCTCTA
CTGCGACAGGTACCTGTGTGACAAGGTCGTCCCTGGGAACAGGGTTACCATCATGGGCATCTACTCCATCAAGAA
GTTTGGCCTGACTACCAGCAGGGGCCGTGACAGGGTGGGCGTGGGCATCCGAAGCTCCTACATCCGTGTCCTGGG
CATCCAGGTGGACACAGATGGCTCTGGCCGCAGCTTTGCTGGGGCCGTGAGCCCCCAGGAGGAGGAGGAGTTCCG
TCGCCTGGCTGCCCTCCCAAATGTCTATGAGGTCATCTCCAAGAGCATCGCCCCCTCCATCTTTGGGGGCACAGA
CATGAAGAAGGCCATTGCCTGCCTGCTCTTTGGGGGCTCCCGAAAGAGGCTCCCTGATGGACTTACTCGCCGAGG
AGACATCAACCTGCTGATGCTAGGGGACCCTGGGACAGCCAAGTCCCAGCTTCTGAAGTTTGTGGAGAAGTGTTC
TCCCATTGGGGTATACACGTCTGGGAAAGGCAGCAGCGCAGCTGGACTGACAGCCTCGGTGATGAGGGACCCTTC
GTCCCGGAATTTCATCATGGAGGGCGGAGCCATGGTCCTGGCCGATGGTGGGGTCGTCTGTATTGACGAGTTTGA
CAAGATGCGAGAAGATGACCGTGTGGCAATCCACGAAGCCATGGAGCAGCAGACCATCTCTATCGCCAAGGCTGG
GATCACCACCACCCTGAACTCCCGCTGCTCCGTCCTGGCTGCTGCCAACTCAGTGTTCGGCCGCTGGGATGAGAC
GAAGGGGGAGGACAACATTGACTTCATGCCCACCATCTTGTCGCGCTTCGACATGATCTTCATCGTCAAGGATGA
GCACAATGAGGTGAGGGATGTGATGCTGGCCAAGCATGTCATCACTCTGCACGTGAGTGCACTGACACAGACACA
GGCTGTGGAGGGCGAGATTGACCTGGCCAAGCTGAAGAAGTTTATTGCCTACTGCCGAGTGAAGTGTGGCCCCCG
GCTGTCAGCAGAGGCTGCAGAGAAACTGAAGAACCGCTACATCATCATGCGGACGGGGCCCGTCAGCACGAGAGG
GACAGTGACCGCGTCCAGCATCCCCATCACTGTGCGGCAGTTGGAGGCCATTGTGCGCATCGCGGAAGCCCTCAG
CAAGATGAAGCTGCAGCCCTTCGCCACAGAGGCAGATGTGGAGGAGGCCCTGCGGCTCTTCCAAGTGTCCACGTT
GGATGCTGCCTTGTCCGGTACCCTGTCAGGGGTGGAGGGCTTCACCAGCCAGGAGGACCAGGAGATGCTGAGCCG
CATCGAGAAGCAGCTCAAGCGCCGCTTTGCCATTGGCTCCCAGGTGTCTGAGCACAGCATCATCAAGGACTTCAC
CAAGCAGAAATACCCGGAGCACGCCATCCACAAGGTGCTGCAGCTCATGCTGCGGCGCGGCGAGATCCAGCATCG
CATGCAGCGCAAGGTTCTCTACCGCCTCAAG**TGA**GTCGCGCCGCTCACTGGACTCATGGACTCGCCACGCTCGCC
CTCCTTGCCGCTGCCTGCCATTGACAATGTTGCTGGGACCTCTGCCTCCCCACTGCAGCCCTCGAACTTCCCAGG
CACCCTCCTTTCTGCCCCAGAGGAAGGAGCTGTAGTGTCCTGCTGCCTCTGGGCGCCCGCTCTAGCGGGTTCTGG
GAAGTGTGCTTTTGGCATCCGTTAATAATAAAGCCACGGTGTGTTCAGGT

FIGURE 151

MSGFDDPGIFYSDSFGGDAQADEGQARKSQLQRRFKEFLRQYRVGTDRTGFTFKYRDELKRHYNLGEYWIEVEME
DLASFDEDLADYLYKQPAEHLQLLEEAAKEVADEVTRPRPSGEEVLQDIQVMLKSDASPSSIRSLKSDMMSHLVK
IPGIIIAASAVRAKATRISIQCRSCRNTLTNIAMRPGLEGYALPRKCNTDQAGRPKCPLDPYFIMPDKCKCVDFQ
TLKLQELPDAVPHGEMPRHMQLYCDRYLCDKVVPGNRVTIMGIYSIKKFGLTTSRGRDRVGVGIRSSYIRVLGIQ
VDTDGSGRSFAGAVSPQEEEEFRRLAALPNVYEVISKSIAPSIFGGTDMKKAIACLLFGGSRKRLPDGLTRRGDI
NLLMLGDPGTAKSQLLKFVEKCSPIGVYTSGKGSSAAGLTASVMRDPSSRNFIMEGGAMVLADGGVVCIDEFDKM
REDDRVAIHEAMEQQTISIAKAGITTTLNSRCSVLAAANSVFGRWDETKGEDNIDFMPTILSRFDMIFIVKDEHN
EVRDVMLAKHVITLHVSALTQTQAVEGEIDLAKLKKFIAYCRVKCGPRLSAEAAEKLKNRYIIMRTGPVSTRGTV
TASSIPITVRQLEAIVRIAEALSKMKLQPFATEADVEEALRLFQVSTLDAALSGTLSGVEGFTSQEDQEMLSRIE
KQLKRRFAIGSQVSEHSIIKDFTKQKYPEHAIHKVLQLMLRRGEIQHRMQRKVLYRLK

FIGURE 152

ATATAACCGCGTGGCCCGCGCGCGCGCTTCCCTCCCGGCGCAGTCACCGGCGCGGTCTATGGCTGCGACTTCTCT
AATGTCTGCTTTGGCTGCCCGGCTGCTGCAGCCCGCGCACAGCTGCTCCCTTCGCCTTCGCCCTTTCCACCTCGC
GGCAGTTCGAAATGAAGCTGTTGTCATTTCTGGAAGGAAACTGGCCCAGCAGATCAAGCAGGAAGTGCGGCAGGA
GGTAGAAGAGTGGGTGGCCTCAGGCAACAAACGGCCACACCTGAGTGTGATCCTGGTTGGCGAGAATCCTGCAAG
TCACTCCTATGTCCTCAACAAAACCAGGGCAGCTGCAGTTGTGGGAATCAACAGTGAGACAATTATGAAACCAGC
TTCAATTTCAGAGGAAGAATTGTTGAATTTAATCAATAAACTGAATAATGATGATAATGTAGATGGCCTCCTTGT
TCAGTTGCCTCTTCCAGAGCATATTGATGAGAGAAGGATCTGCAATGCTGTTTCTCCAGACAAGGATGTTGATGG
CTTTCATGTAATTAATGTAGGACGAATGTGTTTGGATCAGTATTCCATGTTACCGGCTACTCCATGGGGTGTGTG
GGAAATAATCAAGCGAACTGGCATTCCAACCCTAGGGAAGAATGTGGTTGTGGCTGGAAGGTCAAAAAACGTTGG
AATGCCCATTGCAATGTTACTGCACACAGATGGGGCGCATGAACGTCCCGGAGGTGATGCCACTGTTACAATATC
TCATCGATATACTCCCAAAGAGCAGTTGAAGAAACATACAATTCTTGCAGATATTGTAATATCTGCTGCAGGTAT
TCCAAATCTGATCACAGCAGATATGATCAAGGAAGGAGCAGCAGTCATTGATGTGGGAATAAATAGAGTTCACGA
TCCTGTAACTGCCAAACCCAAGTTGGTTGGAGATGTGGATTTTGAAGGAGTCAGACAAAAAGCTGGGTATATCAC
TCCAGTTCCTGGAGGTGTTGGCCCCATGACAGTGGCAATGCTAATGAAGAATACCATTATTGCTGCAAAAAAGGT
GCTGAGGCTTGAAGAGCGAGAAGTGCTGAAGTCTAAAGAGCTTGGGGTAGCCACTAAT**TAA**CTACTGTGTCTTCT
GTGTCACAAACAGCACTCCAGGCCAGCTCAAGAAGCAAAGCAGGCCAATAGAAATGCAATATTTTTAATTTATTC
TACTGAAATGGTTTAAAATGATGCCTTGTATTTATTGAAAGCTTAAATGGGTGGGTGTTTCTGCACATACCTCTG
CAGTACCTCACCAGGGAGCATTCCAGTATCATGCAGGGTCCTGTGATCTAGCCAGGAGCAGCCATTAACCTAGTG
ATTAATATGGGAGACATTACCATATGGAGGATGGATGCTTCACTTTGTCAAGCACCTCAGTTACACATTCGCCTT
TTCTAGGATTGCATTTCCCAAGTGCTATTGCAATAACAGTTGATACTCATTTTAGGTACCAGACCTTTTGAGTTC
AACTGATCAAACCAAAGGAAAGTGTTGCTAGAGAAATTGGGGAAAAGGTGAAAAAGAAAAAATGGTAGTAATT
GAGCAGAAAAAAATTAATTTATATATGTATTGATTGGCAACCAGATTTATCTAAGTAGAACTGAATTGGCTAGGA
AAAAAGAAAAACTGCATGTTAATCATTTTCCTAAGCTGTCCTTTTGAGGCTTAGTCAGTTTATTGGGAAAATGTT
TAGGATTATTCCTTGCTATTAGTACTCATTTTATGTATGTTACCCTTCAGTAAGTTCTCCCCATTTTAGTTTTCT
AGGACTGAAAGGATTCTTTTCTACATTATACATGTGTGTTGTCATATTTGGCTTTTGCTATATACTTTAACTTCA
TTGTTAAATTTTTGTATTGTATAGTTTCTTTGGTGTATCTTAAAACCTATTTTTGAAAAACAAACTTGGCTTGAT
AATCATTTGGGCAGCTTGGGTAAGTACGCAACTTACTTTTCCACCAAAGAACTGTCAGCAGCTGCCTGCTTTTCT
GTGATGTATGTATCCTGTTGACTTTTCCAGAAATTTTTTAAGAGTTTGAGTTACTATTGAATTTAATCAGACTTT
CTGATTAAAGGGTTTTCTTTCTTTTTTAATAAAACACATCTGTCTGGTATGGTA

FIGURE 153

MSALAARLLQPAHSCSLRLRPFHLAAVRNEAVVISGRKLAQQIKQEVRQEVEEWVASGNKRPHLSVILVGENPAS
HSYVLNKTRAAAVVGINSETIMKPASISEEELLNLINKLNNDDNVDGLLVQLPLPEHIDERRICNAVSPDKDVDG
FHVINVGRMCLDQYSMLPATPWGVWEIIKRTGIPTLGKNVVVAGRSKNVGMPIAMLLHTDGAHERPGGDATVTIS
HRYTPKEQLKKHTILADIVISAAGIPNLITADMIKEGAAVIDVGINRVHDPVTAKPKLVGDVDFEGVRQKAGYIT
PVPGGVGPMTVAMLMKNTIIAAKKVLRLEEREVLKSKELGVATN

FIGURE 154

CTCCACCGCGGCGAGAGGCATGGGCACGTGGCTGCCGAGGGTGGCCGAGCTCTGGGAAGAAAAGCCCGTGTGCCT
CTGCATAGCGTCGCTACAGCGCTGACTCGGTGTGGATTGATTGGAAAGGTTTGAGGGAGTACTTGGGAAGC**ATG**G
TGGCACATGATGAGACTGGAGGTCTCCTACCTATTAAAAGGACCATACGAGTCCTAGATGTCAATAACCAGTCCT
TCAGAGAACAAGAGGAGCCAAGCAATAAAAGAGTTCGACCTCTGGCTCGTGTCACGTCCTTGGCAAATTTAATCT
CTCCTGTAAGAAATGGAGCTGTCAGACGTTTTGGTCAAACAATACAGTCATTTACCCTTCGTGGTGACCACAGAT
CCCCAGCCTCTGCCCAGAAGTTTTCTAGCAGGTCAACAGTCCCAACACCCGCCAAGAGAAGGAGCAGTGCACTGT
GGTCAGAGATGCTGGACATCACCATGAAGGAGTCTCTCACCACCAGGGAGATCAGACGGCAGGAGGCAATATATG
AAATGTCCCGAGGTGAACAGGATTTAATTGAGGATCTCAAACTTGCAAGAAAGGCCTACCATGACCCCATGTTAA
AGTTGTCCATCATGTCAGAAGAGGAACTCACACATATATTTGGTGATCTGGACTCTTACATACCTCTGCATGAAG
ATTTGTTGACAAGAATAGGAGAAGCAACCAAGCCTGATGGAACAGTGGAGCAGATTGGTCACATTCTCGTGAGCT
GGTTACCGCGCTTGAATGCCTACAGAGGTTACTGTAGTAACCAGCTGGCAGCCAAAGCTCTTCTTGATCAAAAGA
AACAGGATCCAAGAGTCCAAGACTTCCTCCAGCGATGTCTCGAGTCTCCCTTCAGTCGAAAACTAGATCTTTGGA
GTTTCCTAGATATCCCTCGAAGTCGCCTAGTCAAATACCCTTTACTGTTAAAAGAAATTCTTAAACACACTCCAA
AAGAGCACCCTGATGTTCAGCTTCTGGAGGATGCTATATTGATAATACAGGGAGTCCTCTCTGATATCAACTTGA
AGAAAGGTGAATCCGAGTGCCAGTATTACATCGACAAGCTGGAGTACCTGGATGAAAAGCAGAGGGACCCCAGAA
TCGAAGCGAGCAAAGTGCTGCTGTGCCATGGGGAGCTGCGGAGCAAGAGTGGACATAAACTTTACATTTTCCTGT
TTCAAGACATCTTGGTTCTGACTCGGCCCGTCACACGGAACGAACGGCACTCTTACCAGGTTTACCGGCAGCCAA
TCCCAGTCCAAGAGCTAGTCCTAGAAGACCTGCAGGATGGAGATGTGAGAATGGGAGGCTCCTTTCGAGGAGCTT
TCAGTAACTCAGAGAAAGCTAAAAATATCTTTAGAATTCGCTTCCATGACCCCTCTCCAGCCCAGTCTCACACTC
TGCAAGCCAATGACGTGTTCCACAAGCAGCAGTGGTTCAACTGTATTCGAGCGGCCATTGCCCCCTTCCAGTCGG
CAGGCAGTCCACCTGAGCTGCAGGGCCTGCCGGAGCTGCACGAAGAGTGTGAGGGGAACCACCCCTCTGCGAGGA
AACTCACAGCCCAGAGGAGGGCATCCACAGTTTCCAGTGTTACTCAGGTAGAAGTTGATGAAAACGCTTACAGAT
GTGGCTCTGGCATGCAGATGGCAGAGGACAGCAAGAGCTTAAAGACACACCAGACACAGCCCGGCATCCGAAGAG
CGAGGGACAAAGCCCTTTCTGGTGGCAAACGGAAAGAGACTTTGGTG**TAG**AGAAGGCTCTGTGTGTTAACTGATG
GGAGAGACTGTTTGTTTATAAATGTGTACAGTTTTGTTTTCTCGTAAGGGGAGCATCATAGGGTTACTTTATACC
AGTTGTAACATTTTCATTGTTTTTGGTTGTTCTTTTTTCTTTTTTAATGGCAGCTAAAGATATACAGATTACTG
TTAAATTGCAGTCCTTTTTTTTTTTAAAGATATTTTCTTGAATTATTTAGAACATGGTAAGCCTGGTATTTTTTA
ATCAAACAAAATATTTATGAAATGGGTTTTCTCTTAATTCTGGATTCATCATGGCTTTCTAATACCAATTGTAAT
ATTTACAATATTCACCAAAACTTAGAATTTTGCAAATGCTGGAATTCTGCCAGTGTTTCTTTGCTAAGCCTTGCA
TGCAAAATTTGAAATTTTAACATTGGCACCCAAAACCTACATGGAATGTATGTCTGGAGTATTTCAAACTTTACA
TTGAAACATAATTTCCTTGGAAAACAAACCATAAGCCTGAGGAGGTTTTTATCAACTGGAATGCTTTATATTAGT
TTGTTTTTCACTGTACATTCCTCATTTTACATTCATTTAACCTGCCGATTATTTAATTTTTTTATTGTAAAGTAG
TTTTTAGCATTTGCTTTTATTTTTTTACTTTGATGCCTTTTCAAATTGGCATGTCTTTAAAGTATTTTTCTTCCT
GATTAAAAATGTGTGTGTATGTGTGTGTGTGTGTATATATATATATTTTTTAAATCACATTAATTTTACCAA
GTGAAACCAAGCCATACTGTTTTTGAGCCAATTAAGAAAATTGCCATTTTTAAAGTGTAGCATTTCAGGGTAAAG
ACCCATGAAATGGCTTGATGTATTCTAGACTACTGAAAGAAACCACTTCAAAGATTTTGTTGAAAGTTTTAGTG
TTGTCTGAAATGCAAGAGGGAAGGTGATTGGTAGTGAGTTAAAAGAAAAAGAGAGGAAAAGAGAGTAGTTTTGTC
TTCAAGTAAAATGTCTGGTTGTGCCAGACATTTCACAAGTGTGAAAGGAGATAGGAGAAGCTCAACTTGAGGGCG
TGTAGTAAGTTGTAGAAGGCTCGAGGGGACGTGGACTTATTTGCCTTGGTTTGCAATACCTGCAAATAATGAGTT
TGAAAAGAAACAATGAAATGTGTTAAAAATTTGACCATATTAGATAAATTTTGGTGGATTTAGTCATAAGATGGA
AAAAGACTGGTGAATCTTTTATTACAAAATGTTTCTGTTAAAATGGGATCATCATCTTTGAAAGGGGGGAGGAGG
AGTAAAAGCCCGATTATAATGGTGATCAATTCAAGTCAGTGTTGACTATTCTGTGAAATATATTTGGCCAGTGGA
AATGATAATCAGAAAAGACTGTAAATAGATCCATCCAAATGATTTCTCTGTACAAATGAATGATACTATTAAAAA
AAAAAAAAAA

FIGURE 155

MVAHDETGGLLPIKRTIRVLDVNNQSFREQEEPSNKRVRPLARVTSLANLISPVRNGAVRRFGQTIQSFTLRGDH
RSPASAQKFSSRSTVPTPAKRRSSALWSEMLDITMKESLTTREIRRQEAIYEMSRGEQDLIEDLKLARKAYHDPM
LKLSIMSEEELTHIFGDLDSYIPLHEDLLTRIGEATKPDGTVEQIGHILVSWLPRLNAYRGYCSNQLAAKALLDQ
KKQDPRVQDFLQRCLESPFSRKLDLWSFLDIPRSRLVKYPLLLKEILKHTPKEHPDVQLLEDAILIIQGVLSDIN
LKKGESECQYYIDKLEYLDEKQRDPRIEASKVLLCHGELRSKSGHKLYIFLFQDILVLTRPVTRNERHSYQVYRQ
PIPVQELVLEDLQDGDVRMGGSFRGAFSNSEKAKNIFRIRFHDPSPAQSHTLQANDVFHKQQWFNCIRAAIAPFQ
SAGSPPELQGLPELHEECEGNHPSARKLTAQRRASTVSSVTQVEVDENAYRCGSGMQMAEDSKSLKTHQTQPGIR
RARDKALSGGKRKETLV

FIGURE 156

AGAGGCTTCCCTGGCTGGTGCCTGAGCCCGGCGTCCCTCGCCCCCCGCCCTCCCCGCATCCCTCTCCTCCCTCGC
GCCTGGCCCTGTGGCTCTTCCTCCCTCCCTCCTTCCCCCCCCCCCCACCCCTCGCCCGCTGCCTCCCTCGGCCCA
GCCAGCTGTGCCGGCGTTTGTTGGCTGCCCTGCGCCCGGCCCTCCAGCCAGCCTTCTGCCGGCCCCGCCGCG**ATG**

GAGGTGCCCCAGCCGGAGCCCGCGCCAGGCTCGGCTCTCAGTCCAGCAGGCGTGTGCGGTGGCGCCCAGCGTCCG
GGCCACCTCCCGGGCCTCCTGCTGGGATCTCATGGCCTCCTGGGGTCCCCGGTGCGGGCGGCCGCTTCCTCGCCG
GTCACCACCCTCACCCAGACCATGCACGACCTCGCCGGGCTCGGCAGCCGCAGCCGCCTGACGCACCTATCCCTG
TCTCGACGGGCATCCGAATCCTCCCTGTCGTCTGAATCCTCCGAATCTTCTGATGCAGGTCTCTGCATGGATTCC
CCCAGCCCTATGGACCCCCACATGGCGGAGCAGACGTTTGAACAGGCCATCCAGGCAGCCAGCCGGATCATTCGA
AACGAGCAGTTTGCCATCAGACGCTTCCAGTCTATGCCGGTGAGGCTGCTGGGCCACAGCCCCGTGCTTCGGAAC
ATCACCAACTCCCAGGCGCCCGACGGCCGGAGGAAGAGCGAGGCGGGCAGTGGAGCTGCCAGCAGCTCTGGGGAA
GACAAGGAGAATGTGCGCTTCTGGAAGGCCGGGGTGGGAGCTCTCCGGGAAGAGGAGGGGGCATGCTGGGGTGGT
TCCCTGGCATGTGAGGACCCTCCTCTCCCATCTTGGCTGCAGGATGGATTTGTCTTCAAGATGCCATGGAAGCCC
ACACATCCCAGCTCCACCCATGCTCTGGCAGAGTGGGCCAGCCGCAGGGAAGCCTTTGCCCAGAGACCCAGCTCG
GCCCCCGACCTGATGTGTCTCAGTCCTGACCGGAAGATGGAAGTGGAGGAGCTCAGCCCCCTGGCCCTAGGTCGC
TTCTCTCTGACCCCTGCAGAGGGGGATACTGAGGAAGATGATGGATTTGTGGACATCCTAGAGAGTGACTTAAAG
GATGATGATGCAGTTCCCCCAGGCATGGAGAGTCTCATTAGTGCCCCACTGGTCAAGACCTTGGAAAAGGAAGAG
GAAAAGGACCTCGTCATGTACAGCAAGTGCCAGCGGCTCTTCCGCTCTCCGTCCATGCCCTGCAGCGTGATCCGG
CCCATCCTCAAGAGGCTGGAGCGGCCCCAGGACAGGGACACGCCCGTGCAGAATAAGCGGAGGCGGAGCGTGACC
CCTCCTGAGGAGCAGCAGGAGGCTGAGGAACCTAAAGCCCGCGTCCTCCGCTCAAAATCACTGTGTCACGATGAG
ATCGAGAACCTCCTGGACAGTGACCACCGAGAGCTGATTGGAGATTACTCTAAGGCCTTCCTCCTACAGACAGTA
GACGGAAAGCACCAAGACCTCAAGTACATCTCACCAGAAACGATGGTGGCCCTATTGACGGGCAAGTTCAGCAAC
ATCGTGGATAAGTTTGTGATTGTAGACTGCAGATACCCCTATGAATATGAAGGCGGGCACATCAAGACTGCGGTG
AACTTGCCCCTGGAACGCGACGCCGAGAGCTTCCTACTGAAGAGCCCCATCGCGCCCTGTAGCCTGGACAAGAGA
GTCATCCTCATTTTCCACTGTGAATTCTCATCTGAGCGTGGGCCCCGCATGTGCCGTTTCATCAGGGAACGAGAC
CGTGCTGTCAACGACTACCCCAGCCTCTACTACCCTGAGATGTATATCCTGAAAGGCGGCTACAAGGAGTTCTTC
CCTCAGCACCCGAACTTCTGTGAACCCCAGGACTACCGGCCCATGAACCACGAGGCCTTCAAGGATGAGCTAAAG
ACCTTCCGCCTCAAGACTCGCAGCTGGGCTGGGGAGCGGAGCCGGCGGGAGCTCTGTAGCCGGCTGCAGGACCAG
TGAGGGGCCTGCGCCAGTCCTGCTACCTCCCTTGCCTTTCGAGGCCTGAAGCCAGCTGCCCTATGGGCCTGCCGG
GCTGAGGGCCTGCTGGAGGCCTCAGGTGCTGTCCATGGGAAAGATGGTGTGGTGTCCTGCCTGTCTGCCCCAGCC
CAGATTCCCCTGTGTCATCCCATCATTTTCCATATCCTGGTGCCCCCCACCCCTGGAAGAGCCCAGTCTGTTGAG
TTAGTTAAGTTGGGTTAATACCAGCTTAAAGGCAGTATTTTGTGTCCTCCAGGAGCTTCTTGTTTCCTTGTTAGG
GTTAACCCTTCATCTTCCTGTGTCCTGAAACGCTCCTTTGTGTGTGTGTCAGCTGAGGCTGGGGAGAGCCGTGGT
CCCTGAGGATGGGTCAGAGCTAAACTCCTTCCTGGCCTGAGAGTCAGCTCTCTGCCCTGTGTACTTCCCGGGCCA
GGGCTGCCCCTAATCTCTGTAGGAACCGTGGTATGTCTGCCATGTTGCCCCTTTCTCTTTTCCCCTTTCCTGTCC
CACCATACGAGCACCTCCAGCCTGAACAGAAGCTCTTACTCTTTCCTATTTCAGTGTTACCTGTGTGCTTGGTCT
GTTTGACTTTACGCCCATCTCAGGACACTTCCGTAGACTGTTTAGGTTCCCCTGTCAAATATCAGTTACCCACTC
GGTCCCAGTTTTGTTGCCCCAGAAAGGGATGTTATTATCCTTGGGGGCTCCCAGGGCAAGGGTTAAGGCCTGAAT
CATGAGCCTGCTGGAAGCCCAGCCCCTACTGCTGTGAACCCTGGGGCCTGACTGCTCAGAACTTGCTGCTGTCTT
GTTGCGGATGGATGGAAGGTTGGATGGATGGGTGGATGGCCGTGGATGGCCGTGGATGCGCAGTGCCTTGCATAC
CCAAACCAGGTGGGAGCGTTTTGTTGAGCATGACACCTGCAGCAGGAATATATGTGTGCCTATTTGTGTGGACAA
AAATATTTACACTTAGGGTTTGGAGCTATTCAAGAGGAAATGTCACAGAAGCAGCTAAACCAAGGACTGAGCACC
CTCTGGATTCTGAATCTCAAGATGGGGGCAGGGCTGTGCTTGAAGGCCCTGCTGAGTCATCTGTTAGGGCCTTGG
TTCAATAAAGCACTGAGCAAGTTGAGAAAAAAAAAAAAAAAAAAAA

FIGURE 157

MEVPQPEPAPGSALSPAGVCGGAQRPGHLPGLLLGSHGLLGSPVRAAASSPVTTLTQTMHDLAGLGSRSRLTHLS
LSRRASESSLSSESSESSDAGLCMDSPSPMDPHMAEQTFEQAIQAASRIIRNEQFAIRRFQSMPVRLLGHSPVLR
NITNSQAPDGRRKSEAGSGAASSSGEDKENVRFWKAGVGALREEEGACWGGSLACEDPPLPSWLQDGFVFKMPWK
PTHPSSTHALAEWASRREAFAQRPSSAPDLMCLSPDRKMEVEELSPLALGRFSLTPAEGDTEEDDGFVDILESDL
KDDDAVPPGMESLISAPLVKTLEKEEEKDLVMYSKCQRLFRSPSMPCSVIRPILKRLERPQDRDTPVQNKRRRSV
TPPEEQQEAEEPKARVLRSKSLCHDEIENLLDSDHRELIGDYSKAFLLQTVDGKHQDLKYISPETMVALLTGKFS
NIVDKFVIVDCRYPYEYEGGHIKTAVNLPLERDAESFLLKSPIAPCSLDKRVILIFHCEFSSERGPRMCRFIRER
DRAVNDYPSLYYPEMYILKGGYKEFFPQHPNFCEPQDYRPMNHEAFKDELKTFRLKTRSWAGERSRRELCSRLQD
Q

FIGURE 158A

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CTGCGGCCGCCTGGTTTCTTGCCTTAAGGAGCCCATTGCCTTTCCCGCTGAAGTCTAGATGTTGACATGTAATAA
AGCGGGCAGCAGGATGGTGGTGGATGCGGCCAACTCCAATGGGCCTTTCCAGCCCGTGGTCCTTCTCCATATTCG
AGATGTTCCTCCTGCTGATCAAGAGAAGCTTTTTATCCAGAAGTTACGTCAGTGTTGCGTCCTCTTTGACTTTGT
TTCTGATCCACTAAGTGACCTAAAGTGGAAGGAAGTAAAACGAGCTGCTTTAAGTGAAATGGTAGAATATATCAC
CCATAATCGGAATGTGATCACAGAGCCTATTTACCCAGAAGTAGTCCATATGTTTGCAGTTAACATGTTTCGAAC
ATTACCACCTTCCTCCAATCCTACGGGAGCGGAATTTGACCCGGAGGAAGATGAACCAACGTTAGAAGCAGCCTG
GCCTCATCTACAGCTTGTTTATGAATTTTTCTTAAGATTTTTAGAGTCTCCAGATTTCCAACCTAATATAGCGAA
GAAATATATTGATCAGAAGTTTGTATTGCAGCTTTTAGAGCTCTTTGACAGTGAAGATCCTCGGGAGAGAGATTT
TCTTAAAACCACCCTTCACAGAATCTATGGGAAATTCCTAGGCTTGAGAGCTTACATCAGAAAACAGATAAATAA
TATATTTTATAGGTTTATTTATGAAACAGAGCATCATAATGGCATAGCAGAGTTACTGGAAATATTGGGAAGTAT
AATTAATGGATTTGCCTTACCACTAAAAGAAGAGCACAAGATTTTCTTATTGAAGGTGTTACTACCTTTGCACAA
AGTGAAATCTCTGAGTGTCTACCATCCCCAGCTGGCATACTGTGTAGTGCAGTTTTTAGAAAAGGACAGCACCCT
CACGGAACCAGTGGTGATGGCACTTCTCAAATACTGGCCAAAGACTCACAGTCCAAAAGAAGTAATGTTCTTAAA
CGAATTAGAAGAGATTTTAGATGTCATTGAACCATCAGAATTTGTGAAGATCATGGAACCCCTCTTCCGGCAGTT
GGCCAAATGTGTCTCCAGCCCACACTTCCAGGTGGCAGAGCGAGCTCTCTATTACTGGAATAATGAATACATCAT
GAGTTTAATCAGTGACAACGCAGCGAAGATTCTGCCCATCATGTTTCCTTCCTTGTACCGCAACTCAAAGACCCA
TTGGAACAAGACAATACATGGCTTGATATACAACGCCCTGAAGCTCTTCATGGAGATGAACCAAAAGCTATTTGA
TGACTGTACACAACAGTTCAAAGCAGAGAAACTAAAAGAGAAGCTAAAAATGAAAGAACGGGAAGAAGCATGGGT
TAAAATAGAAATCTAGCCAAAGCCAATCCCCAGTACACAGTGTATAGTCAAGCCAGCACCATGAGCATTCCGGT
TGCAATGGAGACAGATGGGCCTTTATTTGAAGATGTGCAGATGCTGAGAAAGACAGTGAAGGACGAGGCTCATCA
GGCACAGAAAGATCCGAAGAAGGACCGTCCTCTTGCACTCCGCAAGTCCGAGCTGCCTCAGGACCCCCACACCAA
GAAAGCCTTGGAAGCTCACTGCAGGGCCGATGAGCTGGCCTCCCAGGACGGCCGCTAGCCTCCGGGGCGCCGCGT
CGGGGCCGGGCCCGCCAGTTCTTTTCCGGATTCTGTAGAAAATACATACTTCCTGTGCCATACCAATCAGTTACA
CTCAAAGCTTTCTTGGACCCCGTTCCGTAGGCAATAACGTGCGTCCGCCTCAGCGCGAGATTAGGAGTTCAAACA
ATGGTGACTTCCCAGAGCCCGCTGGCAGAGCCGCGGGTTGACGACGGTGTCCTCGCAGTGTCGCCGCCACCCCAG
CGTAGTCCAAGTCAGACTATTTCACAAAGTCAGAGCGATAGGAAAGCACCCTGCCCTTCATCTTCATGTTCTCCC
AAATGGAACTTAGGATCTTTTAACATAGGTGGTTCTGTGATAACATCAGTGTTTTCCAAATCAAAGGAACGCTTT
AAAAAATAGGACCTATTTTTTAAGACTTTACAGCCTTTGAAATGGTTTCCACGTGATTGTTACGCCAGCAGTTCT
TTTGTTTGTTTTTCAATCTCAGTGAAATGGCTCTTTGCTTTCGAGTTCTCACGCAACGTACTGGGCAAATGACAA
TCCTCAGCCGCTGGTATTTTCTAAGGGGTCTCTTCACTTTGATGAGTGACATGAACACCGTGTCTCCTTCTCTTG
TGTGTACCTAAAGCCATATTTCCAAGTCTGTGGTACTCCAGGATTCCAGGAGTAAGCCTGTAGAAGAGATTTATT
TTAAAAGAGATTGCTCTGAAATTTATCTTAAAAGAGCTTGCTCTGTCTACCTTGACAGAAATTGGAGTTTTAAAA
TTATGTGTTAATATTTTTATTTGCAGATTTCGTTTCCGTCAACTTAAACATTGTTGCCCTTCAACAAGGCTCTTG
AATTAATAAAATTATAGTCTCTAAGAATTCCACATTTTATGGAAAGTTAGAGCAAAATCATTTTGAGTTAAGCCA
GTTCTTAGCCTAATGCAAACTGCAGCGCCTTTAAGCATAAAGTAACACAACAGCATTGCACGGGGCCGGCACTGC
CGCTGCCTTCACTGAAGGCTGCAGTGCTGTTCTGAGAGCTTGGAGGAGGCACCAGCGAGGATGACGTTTAGTGGA
GCTCTTTCTGTTGAAAAGAGCTCACGTTATCAACACCTTGTAAGGAAATACAGTGTCTGAGTTTTCATCGGTCT
TCACATGCTGCTATATATTCCACAGAGTTCCTTGCATGTACTGAGCTTTTGTTTTAGATGGAATAGCACAAGGAG
AAAAATCTTTAAACTTAGTGCTTTGTCTATTCTTTATTTCTCTCAGGGTGGCCAGTATTTTGACTTATTTATCCT
GCTTGAAAGCTACTTGAGATGTGTACTGCTATTCTAAACACGTGATCTAGTTTCTTTCATCTCTGGCATAAGATT
ATATAACTTAATGTTAAGTGTCTTGAGGCATAAAAGACAAAATGTGGCTTATTTTAGGATCTGTTTTTTCATCGA
GGTCTCGGGTATCCTTTCAAAGATAGTGAGAAGCAGACACTGCTCCTTGTGCAGCTCTGGTACCTCCTGCCCACT
GCTGTCACTTCAAGCCACTGGCAATGCTTCTGTCCTCGTGTCTTGGAGGAAAATCACCTGGGGGGAGGGGACTTC
TTGTGGTAAGAGCAAGTGCAGGTATGAAATGCGAAGATTGCCCCAGCTAAAAGTGGACAAGTCCGCTTTGTGAGA
TGAATACTTCCTGAGAAACTTGACAAGTATCTCTCCATTTTACCATTATGAAAACTATCATTAAAAAAAACAGTT
TAGATGCCTTCTCCTTTTGAGGGAAAAAGGGTGCTTTTTATTGTATAAAGCAGCGTCTTATGTATTTTGATATAC
CATTGTTTGAACTTCCGTCTTTAGCTGATAGATTCTCAAATATCCTTGATTTTGGATGTTCAGTATGTTTGTGAG
AGAGGTTTCTGGGAAGACTCTCTTTTTGCCCTCGGGAAAAAGCAAAATATCAATGTTTGGGTGACTGTGTAAAGC
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FIGURE 158B

TCAGTGTGTAAGAACATCTTTTTGTCTAGGTTTTCTTTCTGCTCTTTATTGAAGACAAACACTCACCAAAAAGAA
AAATAAAAGTTTTCAGAGAAACTAATTTTCTTTGGCAAGAGTATTACTTAATATTTTGGCCTCCTAAAGTTTCCC
TAGTTAGTACTCGGACTCCTGTGCTAATTGTCAGCTTACATATCATTGTATAGAGACTGTTTATTCTGTACCAAA
CTGATTTCAAAAGTACTACATTGAAAATAAACCGGTGACTGTTTTTCTTCATAAAGTTCTGCGTTTGGCATCTTC
ACTCTTTCCAAAATGTATCTGTACATCAGAAATGTCACTATTCCAAGTGTCTTTTTAGTGTGGCCTTTAGTATGG
CTTCCTTTTAATATTGTACATACATTGTATCTTTGTTTTATGGTAATAAGTAATAAAAATGTAGACTTCAAAAAA
AAAAGCGGCCGCAG

FIGURE 159

MVVDAANSNGPFQPVVLLHIRDVPPADQEKLFIQKLRQCCVLFDFVSDPLSDLKWKEVKRAALSEMVEYITHNRN
VITEPIYPEVVHMFAVNMFRTLPPSSNPTGAEFDPEEDEPTLEAAWPHLQLVYEFFLRFLESPDFQPNIAKKYID
QKFVLQLLELFDSEDPRERDFLKTTLHRIYGKFLGLRAYIRKQINNIFYRFIYETEHHNGIAELLEILGSIINGF
ALPLKEEHKIFLLKVLLPLHKVKSLSVYHPQLAYCVVQFLEKDSTLTEPVVMALLKYWPKTHSPKEVMFLNELEE
ILDVIEPSEFVKIMEPLFRQLAKCVSSPHFQVAERALYYWNNEYIMSLISDNAAKILPIMFPSLYRNSKTHWNKT
IHGLIYNALKLFMEMNQKLFDDCTQQFKAEKLKEKLKMKEREEAWVKIENLAKANPQYTVYSQASTMSIPVAMET
DGPLFEDVQMLRKTVKDEAHQAQKDPKKDRPLALRKSELPQDPHTKKALEAHCRADELASQDGR

FIGURE 160

CCGGAGGAGTCCGAGAGGAAGCGGAGGCGCGAGCTGGAGGCGGCGGCTCCCGTCGGCCTCCGGCAGGACTGAGCG
CTGGGAGGCCGGAAGGCGGGCGCGCACGGCGGAGAGGCGGGCGGGAGGCCGGAGCATATTAATGAAAAGTGCCAT
AAACTGAAAAACCAAAC**ATG**AGGGTAGCAGGTGCTGCAAAGTTGGTGGTAGCTGTGGCAGTGTTTTTACTGACAT
TTTATGTTATTTCTCAAGTATTTGAAATAAAAATGGATGCAAGTTTAGGAAATCTATTTGCAAGATCAGCATTGG
ACACAGCTGCACGTTCTACAAAGCCTCCCAGATATAAGTGTGGGATCTCAAAAGCTTGCCCTGAGAAGCATTTTG
CTTTTAAAATGGCAAGTGGAGCAGCCAACGTGGTGGGACCCAAAATCTGCCTGGAAGATAATGTTTTAATGAGTG
GTGTTAAGAATAATGTTGGAAGAGGGATCAATGTTGCCTTGGCAAATGGAAAAACAGGAGAAGTATTAGACACTA
AATATTTTGACATGTGGGGAGGAGATGTGGCACCATTTATTGAGTTTCTGAAGGCCATACAAGATGGAACAATAG
TTTTAATGGGAACATACGATGATGGAGCAACCAAACTCAATGATGAGGCACGGCGGCTCATTGCTGATTTGGGGA
GCACATCTATTACTAATCTTGGTTTTAGAGACAACTGGGTCTTCTGTGGTGGGAAGGGCATTAAGACAAAAAGCC
CTTTTGAACAGCACATAAAGAACAATAAGGATACAAACAAATATGAAGGATGGCCTGAAGTTGTAGAAATGGAAG
GATGCATCCCCCAGAAGCAAGAC**TAA**TGGAAATGTGGAGAGAATTGAAGAAAGCGCACTTTCACTCTTAATGGGA
GAGCTATAAATGGCAGAGCTATGTGTAAATATTTTAAGAGCATGCAGCCATCTTGGTGTGTGCATGAGTATTGTC
TCTTTTGATATCAGGATTATTTATTGCTAACGTAAATAGATAGCATTGTAAATAATCATCACAATGATCAAATCA
CTGAACCATGTCTCCGCACATTTCCCTAAAAGTACAATGTTAGACTGCTATGGTAATACATATTTTAAATTCTA
AAAGCATACACAATGTGTAACTGAATGGTTTGTGAAAAATATATTGATATATATACTAGTTGCTATGAAAATATC
ATGGAATAATAGGGATTTTAGGGTGGATACTTTATTTTCTTTTATGTTTCTATATGTTGCGTTGTGATGACATTA
TCTTTTAAATTAAAAAGAGATTTGGCTAGTTGTGTGTGTAATGTTACTTTACAGTCCGACTCTCCTGATGTACCT
CTTTTCATGATCTTTTTCTTTCCTTCCCAAGAAACTGAGGAATGTTTAATATGAAAACATACATCGGATATGTGA
AAAGCACAACAAAATTCTTAATGTACACAGTAAAAAAGTAAATATATAAATGTAGATGGCATTTAGGACCACAGC
TTGCTGGATTTGTGTTAGCTATGGGAATAACTTGATTTTGTATAAGCTATTTAGAGTGAGGCTGGAGGTGGCAGC
TTCACAGAACTGGAGAACCAGGCCAAGTCCCCTCCCCAACCTAATTAGGTCATTCAGGACAGCTAAGTCAGTATA
TTTAGAGCAATACTAGCATACGTTTTTCTTAATTGTTATCAGCATTGACCAAGTGGTTTGGAAGGAGGCATGCTT
TAATATCACAATAATTTTGATTTGTAAACCAAGAAATTAATCCTGTGTTATCTAACTTCATAATAGCAATTATT
GCCCGAAGCTATAGTGGCATATTACAAAAGTTCTTATTACTGGGCGGACTGATAACATTTAAAAAATAATTGTG
TTTGACCCCAAATGACTTTATACCCAATTCTACATAAAAATATAGAAGATCTATCTTTTTTTGTTACCTTCAGAT
GTTCACTAAATAACTCAGTTTTTAAGCAGAAGTTTTCAGGGCATTAAATATATGTTGTGTATGAAGTATCTCAAA
CTGGAACATAAATTTAGTGATCAAACTGCCATTCACAGTGTAAGGCAGCACTTAAATTTCGAACCTAAAGTTTAG
ATGCATTGTATAAAAAAACCTAAAAGCAGTATCTGTTATTTAGCTGTAAACCAAGTTGGAAGCTATTCGGATAAT
TTCTTAAATATTGATGAACTTTGGAGTACTGTTTCTTCCTTCAAACTGAATGTAATTAATTCATGAATAAATGCA
CCTTATATGTTTAAACAATCTTTGTATACTTTTGGGATTTTTGGTGCTTATATGCTAAATCACATTCAGCATGTG
TATTTTGACATTTAAAATACTTCCCTCAATTCTGTAAATTAAAAGAATAGTTATTTTACAGTTCCAGGGATTGTG
AAATAAATGTTGCAGTTTTTTAAAATAATGAAAATAAATACTCTTGGTTTTGCTTTGTGAAAAAAAAAAAAAAAA

FIGURE 161

MRVAGAAKLVVAVAVFLLTFYVISQVFEIKMDASLGNLFARSALDTAARSTKPPRYKCGISKACPEKHFAFKMAS
GAANVVGPKICLEDNVLMSGVKNNVGRGINVALANGKTGEVLDTKYFDMWGGDVAPFIEFLKAIQDGTIVLMGTY
DDGATKLNDEARRLIADLGSTSITNLGFRDNWVFCGGKGIKTKSPFEQHIKNNKDTNKYEGWPEVVEMEGCIPQK
QD

FIGURE 162

CCCAGGCGCAGCCAATGGGAAGGGTCGGAGGCATGGCACAGCCAATGGGAAGGGCCGGGGCACCAAAGCCAATGG
GAAGGGCCGGGAGCGCGCGGCGCGGGAGATTTAAAGGCTGCTGGAGTGAGGGGTCGCCCGTGCACCCTGTCCCAG
CCGTCCTGTCCTGGCTGCTCGCTCTGCTTCGCTGCGCCTCCACT**ATG**CTCTCCCTCCGTGTCCCGCTCGCGCCCA
TCACGGACCCGCAGCAGCTGCAGCTCTCGCCGCTGAAGGGGCTCAGCTTGGTCGACAAGGAGAACACGCCGCCGG
CCCTGAGCGGGACCCGCGTCCTGGCCAGCAAGACCGCGAGGAGGATCTTCCAGGAGCCCACGGAGCCGAAAACTA
AAGCAGCTGCCCCCGGCGTGGAGGATGAGCCGCTGCTGAGAGAAAACCCCCGCCGCTTTGTCATCTTCCCCATCG
AGTACCATGATATCTGGCAGATGTATAAGAAGGCAGAGGCTTCCTTTTGGACCGCCGAGGAGGTTGACCTCTCCA
AGGACATTCAGCACTGGGAATCCCTGAAACCCGAGGAGAGATATTTTATATCCCATGTTCTGGCTTTCTTTGCAG
CAAGCGATGGCATAGTAAATGAAAACTTGGTGGAGCGATTTAGCCAAGAAGTTCAGATTACAGAAGCCCGCTGTT
TCTATGGCTTCCAAATTGCCATGGAAAACATACATTCTGAAATGTATAGTCTTCTTATTGACACTTACATAAAAG
ATCCCAAAGAAAGGGAATTTCTCTTCAATGCCATTGAAACGATGCCTTGTGTCAAGAAGAAGGCAGACTGGGCCT
TGCGCTGGATTGGGGACAAAGAGGCTACCTATGGTGAACGTGTTGTAGCCTTTGCTGCAGTGGAAGGCATTTTCT
TTTCCGGTTCTTTTGCGTCGATATTCTGGCTCAAGAAACGAGGACTGATGCCTGGCCTCACATTTTCTAATGAAC
TTATTAGCAGAGATGAGGGTTTACACTGTGATTTTGCTTGCCTGATGTTCAAACACCTGGTACACAAACCATCGG
AGGAGAGAGTAAGAGAAATAATTATCAATGCTGTTCGGATAGAACAGGAGTTCCTCACTGAGGCCTTGCCTGTGA
AGCTCATTGGGATGAATTGCACTCTAATGAAGCAATACATTGAGTTTGTGGCAGACAGACTTATGCTGGAACTGG
GTTTTAGCAAGGTTTTCAGAGTAGAGAACCCATTTGACTTTATGGAGAATATTTCACTGGAAGGAAAGACTAACT
TCTTTGAGAAGAGAGTAGGCGAGTATCAGAGGATGGGAGTGATGTCAAGTCCAACAGAGAATTCTTTTACCTTGG
ATGCTGACTTC**TAA**ATGAACTGAAGATGTGCCCTTACTTGGCTGATTTTTTTTTCCATCTCATAAGAAAAATCA
GCTGAAGTGTTACCAACTAGCCACACCATGAATTGTCCGTAATGTTCATTAACAGCATCTTTAAAACTGTGTAGC
TACCTCACAACCAGTCCTGTCTGTTTATAGTGCTGGTAGTATCACCTTTTGCCAGAAGGCCTGGCTGGCTGTGAC
TTACCATAGCAGTGACAATGGCAGTCTTGGCTTTAAAGTGAGGGGTGACCCTTTAGTGAGCTTAGCACAGCGGGA
TTAAACAGTCCTTTAACCAGCACAGCCAGTTAAAAGATGCAGCCTCACTGCTTCAACGCAGATTTTAATGTTTAC
TTAAATATAAACCTGGCACTTTACAAACAAATAAACATTGTTTTGTACTCACGGCGGCGATAATAGCTTGATTTA
TTTGGTTTCTACACCAAATACATTCTCCTGACCACTAATGGGAGCCAATTCACAATTCACTAAGTGACTAAAGTA
AGTTAAACTTGTGTAGACTAAGCATGTAATTTTTAAGTTTTATTTTAATGAATTAAAATATTTGTTAACCAACTT
TAAAGTCAGTCCTGTGTATACCTAGATATTAGTCAGTTGGTGCCAGATAGAAGACAGGTTGTGTTTTTATCCTGT
GGCTTGTGTAGTGTCCTGGGATTCTCTGCCCCCTCTGAGTAGAGTGTTGTGGGATAAAGGAATCTCTCAGGGCAA
GGAGCTTCTTAAGTTAAATCACTAGAAATTTAGGGGTGATCTGGGCCTTCATATGTGTGAGAAGCCGTTTCATTT
TATTTCTCACTGTATTTTCCTCAACGTCTGGTTGATGAGAAAAAATTCTTGAAGAGTTTTCATATGTGGGAGCTA
AGGTAGTATTGTAAAATTTCAAGTCATCCTTAAACAAAATGATCCACCTAAGATCTTGCCCCTGTTAAGTGGTGA
AATCAACTAGAGGTGGTTCCTACAAGTTGTTCATTCTAGTTTTGTTTGGTGTAAGTAGGTTGTGTGAGTTAATTC
ATTTATATTTACTATGTCTGTTAAATCAGAAATTTTTATTATCTATGTTCTTCTAGATTTTACCTGTÀGTTCAT
ACTTCAGTCACCCAGTGTCTTATTCTGGCATTGTCTAAATCTGAGCATTGTCTAGGGGGATCTTAAACTTTAGTA
GGAAACCATGAGCTGTTAATACAGTTTCCATTCAAATATTAATTTCAGAATGAAACATAATTTTTTTTTTTTTTT
TGAGATGGAGTCTCGCTCTGTTGCCCAGGCTGGAGTGCAGTGGCGCGATTTTGGCTCACTGTAACCTCCATCTCC
TGGGTTCAAGCAATTCTCCTGTCTCAGCCTCCCTAGTAGCTGGGACTGCAGGTATGTGCTACCACACCTGGCTAA
TTTTTGTATTTTTAGTAGAGATGGAGTTTCACCATATTGGTCAGGCTGGTCTTGAACTCCTGACCTCAGGTGATC
CACCCACCTCGGCCTCCCAAAGTGCTGGGATTGCAGGCGTGATAAACAAATATTCTTAATAGGGCTACTTTGAA
TTAATCTGCCTTTATGTTTGGGAGAAGAAAGCTGAGACATTGCATGAAAGATGATGAGAGATAAATGTTGATCTT
TTGGCCCCATTTGTTAATTGTATTCAGTATTTGAACGTCGTCCTGTTTATTGTTAGTTTTCTTCATCATTTATTG
TATAGACAATTTTTAAATCTCTGTAATATGATACATTTTCCTATCTTTTAAGTTATTGTTACCTAAAGTTAATCC
AGATTATATGGTCCTTATATGTGTACAACATTAAAATGAAAGGCTTTGTCTTGCATTGTGAGGTACAGGCGGAAG
TTGGAATCAGGTTTTAGGATTCTGTCTCTCATTAGCTGAATAATGTGAGGATTAACTTCTGCCAGCTCAGACCAT
TTCCTAATCAGTTGAAAGGGAAACAAGTATTTCAGTCTCAAAATTGAATAATGCACAAGTCTTAAGTGATTAAAA
TAAAACTGTTCTTATGTC

FIGURE 163

MLSLRVPLAPITDPQQLQLSPLKGLSLVDKENTPPALSGTRVLASKTARRIFQEPTEPKTKAAAPGVEDEPLLRE
NPRRFVIFPIEYHDIWQMYKKAEASFWTAEEVDLSKDIQHWESLKPEERYFISHVLAFFAASDGIVNENLVERFS
QEVQITEARCFYGFQIAMENIHSEMYSLLIDTYIKDPKEREFLFNAIETMPCVKKKADWALRWIGDKEATYGERV
VAFAAVEGIFFSGSFASIFWLKKRGLMPGLTFSNELISRDEGLHCDFACLMFKHLVHKPSEERVREIIINAVRIE
QEFLTEALPVKLIGMNCTLMKQYIEFVADRLMLELGFSKVFRVENPFDFMENISLEGKTNFFEKRVGEYQRMGVM
SSPTENSFTLDADF

FIGURE 164

GAATTCGGGCGGTCCTCGGAGACACGCGGCGGTGTCCTGTGTTGGCC**ATG**GCCGACTACCTGATTAGTGGGGGCA
CGTCCTACGTGCCAGACGACGGACTCACAGCACAGCAGCTCTTCAACTGCGGAGACGGCCTCACCTACAATGACT
TTCTCATTCTCCCTGGGTACATCGACTTCACTGCAGACCAGGTGGACCTGACTTCTGCTCTGACCAAGAAAATCA
CTCTTAAGACCCCACTGGTTTCCTCTCCCATGGACACAGTCACAGAGGCTGGGATGGCCATAGCAATGGCGCTTA
CAGGCGGTATTGGCTTCATCCACCACAACTGTACACCTGAATTCCAGGCCAATGAAGTTCGGAAAGTGAAGAAAT
ATGAACAGGGATTCATCACAGACCCTGTGGTCCTCAGCCCCAAGGATCGCGTGCGGGATGTTTTTGAGGCCAAGG
CCCGGCATGGTTTCTGCGGTATCCCAATCACAGACACAGGCCGGATGGGGAGCCGCTTGGTGGGCATCATCTCCT
CCAGGGACATTGATTTTCTCAAAGAGGAGGAACATGACTGTTTCTTGGAAGAGATAATGACAAAGAGGGAAGACT
TGGTGGTAGCCCCCCGCAGCATCACACTGAAGGAGGCAAATGAAATTCTGCAGCGCAGCAAGAAGGGAAAGTTGC
CCATTGTAAATGAAGATGATGAGCTTGTGGCCATCATTGCCCGGACAGACCTGAAGAAGAATCGGGACTACCCAC
TAGCCTCCAAAGATGCCAAGAAACAGCTGCTGTGTGGGGCAGCCATTGGCACTCATGAGGATGACAAGTATAGGC
TGGACTTGCTCGCCCAGGCTGGTGTGGATGTAGTGGTTTTGGACTCTTCCCAGGGAAATTCCATCTTCCAGATCA
ATATGATCAAGTACATCAAAGACAAATACCCTAATCTCCAAGTCATTGGAGGCAATGTGGTCACTGCTGCCCAGG
CCAAGAACCTCATTGATGCAGGTGTGGATGCCCTGCGGGTGGGCATGGGAAGTGGCTCCATCTGCATTACGCAGG
AAGTGCTGGCCTGTGGGCGGCCCCAAGCAACAGCAGTGTACAAGGTGTCAGAGTATGCACGGCGCTTTGGTGTTC
CGGTCATTGCTGATGGAGGAATCCAAAATGTGGGTCATATTGCGAAAGCCTTGGCCCTTGGGGCCTCCACAGTCA
TGATGGGCTCTCTCCTGGCTGCCACCACTGAGGCCCCTGGTGAATACTTCTTTTCCGATGGGATCCGGCTAAAGA
AATATCGCGGTATGGGTTCTCTCGATGCCATGGACAAGCACCTCAGCAGCCAGAACAGATATTTCAGTGAAGCTG
ACAAAATCAAAGTGGCCCAGGGAGTGTCTGGTGCTGTGCAGGACAAAGGGTCAATCCACAAATTTGTCCCTTACC
TGATTGCTGGCATCCAACACTCATGCCAGGACATTGGTGCCAAGAGCTTGACCCAAGTCCGAGCCATGATGTACT
CTGGGGAGCTTAAGTTTGAGAAGAGAACGTCCTCAGCCCAGGTGGAAGGTGGCGTCCATAGCCTCCATTCGTATG
AGAAGCGGCTTTTC**TGA**AAAGGGATCCAGCACACCTCCTCGGTTTTTTTTTCAATAAAAGTTTAGAAAGACCCGA
ATTC

FIGURE 165

MADYLISGGTSYVPDDGLTAQQLFNCGDGLTYNDFLILPGYIDFTADQVDLTSALTKKITLKTPLVSSPMDTVTE
AGMAIAMALTGGIGFIHHNCTPEFQANEVRKVKKYEQGFITDPVVLSPKDRVRDVFEAKARHGFCGIPITDTGRM
GSRLVGIISSRDIDFLKEEEHDCFLEEIMTKREDLVVAPRSITLKEANEILQRSKKGKLPIVNEDDELVAIIART
DLKKNRDYPLASKDAKKQLLCGAAIGTHEDDKYRLDLLAQAGVDVVVLDSSQGNSIFQINMIKYIKDKYPNLQVI
GGNVVTAAQAKNLIDAGVDALRVGMGSGSICITQEVLACGRPQATAVYKVSEYARRFGVPVIADGGIQNVGHIAK
ALALGASTVMMGSLLAATTEAPGEYFFSDGIRLKKYRGMGSLDAMDKHLSSQNRYFSEADKIKVAQGVSGAVQDK
GSIHKFVPYLIAGIQHSCQDIGAKSLTQVRAMMYSGELKFEKRTSSAQVEGGVHSLHSYEKRLF

FIGURE 166

AGAGCGATC**ATG**TCGCACAAACAAATTTACTATTCGGACAAATACGACGACGAGGAGTTTGAGTATCGACATGTC
ATGCTGCCCAAGGACATAGCCAAGCTGGTCCCTAAAACCCATCTGATGTCTGAATCTGAATGGAGGAATCTTGGC
GTTCAGCAGAGTCAGGGATGGGTCCATTATATGATCCATGAACCAGAACCTCACATCTTGCTGTTCCGGCGCCCA
CTACCCAAGAAACCAAAGAAA**TGA**AGCTGGCAAGCTACTTTTCAGCCTCAAGCTTTACACAGCTGTCCTTACTTC
CTAACATCTTTCTGATAACATTATTATGTTGCCTTCTTGTTTCTCACTTTGATATTTAAAAGATGTTCAATACAC
TGTTTGAATGTGCTGGTAACTGCTTTGCTTCTTGAGTAGAGCCACCACCACCATAGCCCAGCCAGATGAGTGCTC
TGTGGACCCACAGCCTAAGCTGAGTGTGACCCCAGAAGCCACGATGTGCTCTGTATCCAGAACACACTTGGCAGA
TGGAGGAAGCATCTGAGTTTGAGACCATGGCTGTTACAGGGATCATGTAAACTTGCTGTTTTTGTTTTTTCTGCC
GGGTGTTGTATGTGTGGTGACTTGCGGATTTATGTTTCAGTGTACTGGAAACTTTCCATTTTATTCAAGAAATCT
GTTCATGTTAAAAGCCTTGATTAAAGAGGAAGTTTTTATAAT

FIGURE 167

MSHKQIYYSDKYDDEEFEYRHVMLPKDIAKLVPKTHLMSESEWRNLGVQQSQGWVHYMIHEPEPHILLFRRPLPK
KPKK

FIGURE 168

GCGGCGCTCGCGCCAAGGGACGTGTTTCTGCGCTCGCGTGGTC**ATG**GAGGCGCTGCCGCTGCTAGCCGCGACAAC
TCCGGACCACGGCCGCCACCGAAGGCTGCTTCTGCTGCCGCTACTGCTGTTCCTGCTGCCGGCTGGAGCTGTGCA
GGGCTGGGAGACAGAGGAGAGGCCCCGGACTCGCGAAGAGGAGTGCCACTTCTACGCGGGTGGACAAGTGTACCC
GGGAGAGGCATCCCGGGTATCGGTCGCCGACCACTCCCTGCACCTAAGCAAAGCGAAGATTTCCAAGCCAGCGCC
CTACTGGGAAGGAACAGCTGTGATCGATGGAGAATTTAAGGAGCTGAAGTTAACTGATTATCGTGGGAAATACTT
GGTTTTCTTCTTCTACCCACTTGATTTCACATTTGTGTGTCCAACTGAAATTATCGCTTTTGGCGACAGACTTGA
AGAATTCAGATCTATAAATACTGAAGTGGTAGCATGCTCTGTTGATTCACAGTTTACCCATTTGGCCTGGATTAA
TACCCCTCGAAGACAAGGAGGACTTGGGCCAATAAGGATTCCACTTCTTTCAGATTTGACCCATCAGATCTCAAA
GGACTATGGTGTATACCTAGAGGACTCAGGCCACACTCTTAGAGGTCTCTTCATTATTGATGACAAAGGAATCCT
AAGACAAATTACTCTGAATGATCTTCCTGTGGGTAGATCAGTGGATGAGACACTACGTTTGGTTCAAGCATTCCA
GTACACTGACAAACACGGAGAAGTCTGCCCTGCTGGCTGGAAACCTGGTAGTGAAACAATAATCCCAGATCCAGC
TGGAAAGCTGAAGTATTTCGATAAACTGAAT**TGA**GAAATACTTCTTCAAGTTATGATGCTTGAAAGTTCTCAATA
AAGTTCACGGTTTCATTACCA

FIGURE 169

MEALPLLAATTPDHGRHRRLLLLLPLLLFLLPAGAVQGWETEERPRTREEECHFYAGGQVYPGEASRVSVADHSLH
LSKAKISKPAPYWEGTAVIDGEFKELKLTDYRGKYLVFFFYPLDFTFVCPTEIIAFGDRLEEFRSINTEVVACSV
DSQFTHLAWINTPRRQGGLGPIRIPLLSDLTHQISKDYGVYLEDSGHTLRGLFIIDDKGILRQITLNDLPVGRSV
DETLRLVQAFQYTDKHGEVCPAGWKPGSETIIPDPAGKLKYFDKLN

FIGURE 170

GGAAAAAAGCGACTTGTGGCGGTCGAGCGTGGCGCAGGCGAATCCTCGGCACTAAGCAAA**ATG**GACCTCGCGGC
GGCAGCGGAGCCGGGCGCCGGCAGCCAGCACCTGGAGGTCCGCGACGAGGTGGCCGAGAAGTGCCAGAAACTGTT
CCTGGACTTCTTGGAGGAGTTTCAGAGCAGCGATGGAGAAATTAAATACTTGCAATTAGCAGAGGAACTGATTCG
TCCTGAGAGAAACACATTGGTTGTGAGTTTTGTGGACCTGGAACAATTTAACCAGCAACTTTCCACCACCATTCA
AGAGGAGTTCTATAGAGTTTACCCTTACCTGTGTCGGGCCTTGAAAACATTCGTCAAAGACCGTAAAGAGATCCC
TCTTGCCAAGGATTTTTATGTTGCATTCCAAGACCTGCCTACCAGACACAAGATTCGAGAGCTCACCTCATCCAG
AATTGGTTTGCTCACTCGCATCAGTGGGCAGGTGGTGCGGACTCACCCAGTTCACCCAGAGCTTGTGAGCGGAAC
TTTTCTGTGCTTGGACTGTCAGACAGTGATCAGGGATGTAGAACAGCAGTTCAAATACACACAGCCAAACATCTG
CCGAAATCCAGTTTGTGCCAACAGGAGGAGATTCTTACTGGATACAAATAAATCAAGATTTGTTGATTTTCAAAA
GGTTCGTATTCAAGAGACCCAAGCTGAGCTTCCTCGAGGGAGTATCCCCCGCAGTTTAGAAGTAATTTTAAGGGC
TGAAGCTGTGGAATCAGCTCAAGCTGGTGACAAGTGTGACTTTACAGGGACACTGATTGTTGTGCCTGACGTCTC
CAAGCTTAGCACACCAGGAGCACGTGCAGAAACTAATTCCCGTGTCAGTGGTGTTGATGGATATGAGACAGAAGG
CATTCGAGGACTCCGGGCCCTTGGTGTTAGGGACCTTTCTTATAGGCTGGTCTTTCTTGCCTGCTGTGTTGCGCC
AACCAACCCAAGGTTTGGGGGGAAAGAGCTCAGAGATGAGGAACAGACAGCTGAGAGCATTAAGAACCAAATGAC
TGTGAAAGAATGGGAGAAAGTGTTTGAGATGAGTCAAGATAAAAATCTATACCACAATCTTTGTACCAGCCTGTT
CCCTACTATACATGGCAATGATGAAGTAAAACGGGGTGTCCTGCTGATGCTCTTTGGTGGCGTTCCAAAGACAAC
AGGAGAAGGGACCTCTCTTCGAGGGGACATAAATGTTTGCATTGTTGGTGACCCAAGTACAGCTAAGAGCCAATT
TCTCAAGCACGTGGAGGAGTTCAGCCCCAGAGCTGTCTACACCAGTGGTAAAGCGTCCAGTGCTGCTGGCTTAAC
AGCAGCTGTTGTGAGAGATGAAGAATCTCATGAGTTTGTCATTGAGGCTGGAGCTTTGATGTTGGCTGATAATGG
TGTGTGTTGTATTGATGAATTTGATAAGATGGACGTGCGGGATCAAGTTGCTATTCATGAAGCTATGGAACAGCA
GACCATATCCATCACTAAAGCAGGAGTGAAGGCTACTCTGAACGCCCGGACGTCCATTTTGGCAGCAGCAAACCC
AATCAGTGGACACTATGACAGATCAAAATCATTGAAACAGAATATAAATTTGTCAGCTCCCATCATGTCCCGATT
CGATCTCTTCTTTATCCTTGTGGATGAATGTAATGAGGTTACAGATTATGCCATTGCCAGGCGCATAGTAGATTT
GCATTCAAGAATTGAGGAATCAATTGATCGTGTCTATTCCCTCGATGATATCAGAAGATATCTTCTCTTTGCAAG
ACAGTTTAAACCCAAGATTTCCAAAGAGTCAGAGGACTTCATTGTGGAGCAATATAAACATCTCCGCCAGAGAGA
TGGTTCTGGAGTGACCAAGTCTTCATGGAGGATTACAGTGCGACAGCTTGAGAGCATGATTCGTCTCTCTGAAGC
TATGGCTCGGATGCACTGCTGTGATGAGGTCCAACCTAAACATGTGAAGGAAGCTTTCCGGTTACTGAATAAATC
AATCATCCGTGTGGAAACACCTGATGTCAATCTAGATCAAGAGGAAGAGATCCAGATGGAGGTAGATGAGGGTGC
TGGTGGCATCAATGGTCATGCTGACAGCCCTGCTCCTGTGAACGGGATCAATGGCTACAATGAAGACATAAATCA
AGAGTCTGCTCCCAAAGCCTCCTTAAGGCTGGGCTTCTCTGAGTACTGCCGAATCTCTAACCTTATTGTGCTTCA
CCTCAGAAAGGTGGAAGAAGAAGAGGACGAGTCAGCATTAAAGAGGAGCGAGCTTGTTAACTGGTACTTGAAGGA
AATCGAATCAGAGATAGACTCTGAAGAAGAACTTATAAATAAAAAAGAATCATAGAGAAAGTTATTCATCGACT
CACACACTATGATCATGTTCTAATTGAGCTCACCCAGGCTGGATTGAAAGGCTCCACAGAGGGAAGTGAGAGCTA
TGAAGAAGATCCCTACTTGGTAGTTAACCCTAACTACTTGCTCGAAGA**TGA**GATAGTGAAAGTAACTGACCAGA
GCTGAGGAACTGTGGCACAGCACCTCGTGGCCTGGAGCCTGGCTGGAGCTCTGCTAGGGACAGAAGTGTTTCTGG
AAGTGATGCTTCCAGGATTTGTTTTCAGAAACAAGAATTGAGTTGATGGTCCTATGTGTCACATTCATCACAGGT
TTCATACCAACACAGGCTTCAGCACTTCCTTTGGTGTGTTTCCTGTCCCAGTGAAGTTGGAACCAAATAATGTGT
AGTCTCTATAACCAATACCTTTGTTTTCATGTGTAAGAAAAGGCCCATTACTTTTAAGGTATGTGCTGTCCTATT
GAGCAAATAACTTTTTTTCAATTGCCAGCTACTGCTTTTATTCATCAAAATAAAATAACTTGTTCTG

FIGURE 171

MDLAAAAEPGAGSQHLEVRDEVAEKCQKLFLDFLEEFQSSDGEIKYLQLAEELIRPERNTLVVSFVDLEQFNQQL
STTIQEEFYRVYPYLCRALKTFVKDRKEIPLAKDFYVAFQDLPTRHKIRELTSSRIGLLTRISGQVVRTHPVHPE
LVSGTFLCLDCQTVIRDVEQQFKYTQPNICRNPVCANRRRFLLDTNKSRFVDFQKVRIQETQAELPRGSIPRSLE
VILRAEAVESAQAGDKCDFTGTLIVVPDVSKLSTPGARAETNSRVSGVDGYETEGIRGLRALGVRDLSYRLVFLA
CCVAPTNPRFGGKELRDEEQTAESIKNQMTVKEWEKVFEMSQDKNLYHNLCTSLFPTIHGNDEVKRGVLLMLFGG
VPKTTGEGTSLRGDINVCIVGDPSTAKSQFLKHVEEFSPRAVYTSGKASSAAGLTAAVVRDEESHEFVIEAGALM
LADNGVCCIDEFDKMDVRDQVAIHEAMEQQTISITKAGVKATLNARTSILAAANPISGHYDRSKSLKQNINLSAP
IMSRFDLFFILVDECNEVTDYAIARRIVDLHSRIEESIDRVYSLDDIRRYLLFARQFKPKISKESEDFIVEQYKH
LRQRDGSGVTKSSWRITVRQLESMIRLSEAMARMHCCDEVQPKHVKEAFRLLNKSIIRVETPDVNLDQEEEIQME
VDEGAGGINGHADSPAPVNGINGYNEDINQESAPKASLRLGFSEYCRISNLIVLHLRKVEEEEDESALKRSELVN
WYLKEIESEIDSEEELINKKRIIEKVIHRLTHYDHVLIELTQAGLKGSTEGSESYEEDPYLVVNPNYLLED

FIGURE 172

CTGGTCCCGAGCACGAGCTGTGAGGGGATTCACTTGTGTGCGGAACTCCTCGGAACC**ATG**GCGTCCCTTTCCCTT
GCACCTGTTAACATCTTTAAGGCAGGAGCTGATGAAGAGAGAGCAGAGACAGCTCGTCTGACTTCTTTTATTGGT
GCCATCGCCATTGGAGACTTGGTAAAGAGCACCTTGGGACCCAAAGGCATGGACAAAATTCTTCTAAGCAGTGGA
CGAGATGCCTCTCTTATGGTAACCAATGATGGTGCCACTATTCTAAAAAACATTGGTGTTGACAATCCAGCAGCT
AAAGTTTTAGTTGATATGTCAAGGGTTCAAGATGATGAAGTTGGTGATGGCACTACCTCTGTTACCGTTTTAGCA
GCAGAATTATAAGGGAAGCAGAATCTTTAATTGCAAAAAAGATTCATCCACAGACCATCATAGCGGGTTGGAGA
GAAGCCACGAAGGCTGCAAGAGAGGCGCTGTTGAGTTCTGCAGTTGATCATGGTTCCGATGAAGTTAAATTCCGT
CAAGATTTAATGAATATTGCGGGCACAACATTATCCTCAAAACTTCTTACTCATCACAAAGACCACTTTACAAAG
TTAGCTGTAGAAGCAGTTCTCAGACTGAAAGGCTCTGGCAACCTGGAGGCAATTCATATTATCAAGAAGCTAGGA
GGAAGTTTGGCAGATTCCTATTTAGATGAAGGCTTCCTGTTGGATAAAAAAATTGGAGTAAATCAACCAAAACGA
ATTGAAAATGCTAAAATTCTTATTGCAAATACTGGTATGGATACAGACAAAATAAAGATATTTGGTTCCCGGGTA
AGAGTTGACTCTACAGCAAAGGTTGCAGAAATAGAACATGCGGAAAAGGAAAAAATGAAGGAGAAAGTTGAACGT
ATTCTTAAGCATGGAATAAATTGCTTTATTAACAGGCAATTAATTTATAATTATCCTGAACAGCTCTTTGGTGCT
GCTGGTGTCATGGCTATTGAGCATGCAGATTTTGCAGGTGTGGAACGCCTAGCTCTTGTCACAGGTGGTGAAATT
GCCTCTACCTTTGATCACCCAGAACTGGTGAAGCTTGGAAGTTGCAAACTTATCGAGGAAGTCATGATTGGAGAA
GACAAACTCATTCACTTTTCTGGGGGTTGCCCTTGGTGAGGCTTGTACCATTGTTTTGCGTGGTGCCACTCAACAA
ATTTTAGATGAAGCAGAAAGATCATTGCATGATGCTCTTTGTGTTCTTGCGCAAACTGTAAAGGACTCTAGAACA
GTTTATGGAGGAGGCTGTTCTGAGATGTTGATGGCTCATGCTGTGACACAGCTTGCCAATAGAACACCAGGCAAA
GAAGCTGTTGCAATGGAGTCTTATGCTAAAGCACTGAGAATGTTGCCAACCATCATAGCTGACAATGCAGGCTAT
GACAGTGCAGACCTGGTGGCACAGCTCAGGGCTGCTCACAGTGAAGGCAATACCACTGCTGGATTGGATATGAGG
GAAGGCACCATTGGAGATATGGCTATCCTGGGTATAACAGAAAGTTTTCAAGTGAAGCGACAGGTTCTTCTGAGT
GCAGCTGAAGCAGCAGAGGTGATTCTGCGTGTGGACAACATCATCAAAGCGGCACCCAGGAAACGTGTCCCTGAT
CACCACCCCTGT**TAA**GCATTCCCACGTGCTGTCGATCTTTGGACCAGTTTCTAGCAAAGTTGTGTTTGAAAGATA
CTCTATTAAAGAAGACTGTGGAATCTGTTTATCGGTGCCCATTATATCCTTAAGTTTGGATATTTAGCTGACCTT
CGCTTTAACATAGGTCTAATTTATTTGCCGTGTCATTTTCCATACAAATCAGTTGATTTAAAGGAGTTCATTTCG
CATACTGGGCATTAAAATAAAAATTTGAACAATGAAAGGAAAAAAGGAGAAAAAAAAA

FIGURE 173

MASLSLAPVNIFKAGADEERAETARLTSFIGAIAIGDLVKSTLGPKGMDKILLSSGRDASLMVTNDGATILKNIG
VDNPAAKVLVDMSRVQDDEVGDGTTSVTVLAAELLREAESLIAKKIHPQTIIAGWREATKAAREALLSSAVDHGS
DEVKFRQDLMNIAGTTLSSKLLTHHKDHFTKLAVEAVLRLKGSGNLEAIHIIKKLGGSLADSYLDEGFLLDKKIG
VNQPKRIENAKILIANTGMDTDKIKIFGSRVRVDSTAKVAEIEHAEKEKMKEKVERILKHGINCFINRQLIYNYP
EQLFGAAGVMAIEHADFAGVERLALVTGGEIASTFDHPELVKLGSCKLIEEVMIGEDKLIHFSGVALGEACTIVL
RGATQQILDEAERSLHDALCVLAQTVKDSRTVYGGGCSEMLMAHAVTQLANRTPGKEAVAMESYAKALRMLPTII
ADNAGYDSADLVAQLRAAHSEGNTTAGLDMREGTIGDMAILGITESFQVKRQVLLSAAEAAEVILRVDNIIKAAP
RKRVPDHHPC

FIGURE 174

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GCCTGAGTGAGTCTCTGGCGTCCCAAATTGCCTGTTTTTCTCGCAGGCTCTATTCCGTTCGCTGGTTCGCCACCT
CAGGGGAACGATGGCCATGGAGTCCACAGCCACTGCCGCCGTCGCCGCGGACGTGGTTTCTGCCGACAAAATTGA
AGATGTCCCTGCTCCTTCTACATCTGCAGATAAAGTGGAGAGTCTGGATGTGGATAGTGAAGCTAAGAAACTATT
GGGTTTAGGACAGAAACATCTGGTGATGGGGGATATTCCAGCAGCTGTCAATGCATTCCAGGAAGCAGCTAGTCT
TTTAGGTAAGAAGTATGGAGAGACAGCTAATGAGTGTGGAGAAGCCTTCTTTTTCTATGGGAAATCACTTCTGGA
GTTGGCAAGAATGGAGAATGGTGTGTTGGGAAACGCCTTGGAAGGTGTGCATGTGGAAGAGGAAGAAGGAGAAAA
AACAGAAGATGAATCTCTGGTAGAAAATAATGATAACATAGATGAGGAAGCAAGGGAAGAGTTGAGAGAACAGGT
TTATGACGCCATGGGAGAAAAAGAAGAAGCCAAAAAAACAGAAGACAAGTCTTTGGCAAAGCCTGAAACTGATAA
AGAACAGGACAGTGAAATGGAGAAGGGTGGAAGAGAAGATATGGATATAAGTAAATCTGCAGAGGAGCCACAGGA
AAAAGTTGACTTGACTCTAGATTGGTTAACTGAAACCTCTGAAGAGGCAAAAGGAGGAGCAGCACCAGAAGGACC
GAATGAAGCTGAGGTCACTTCTGGGAAGCCAGAACAGGAAGTACCAGATGCTGAGGAAGAAAAATCAGTTTCTGG
AACTGATGTCCAAGAAGAGTGCAGAGAAAAAGGAGGTCAGGAGAAGCAGGGAGAGGTAATTGTGAGCATAGAGGA
GAAGCCAAAAGAAGTTTCAGAAGAGCAGCCTGTGGTGACTCTAGAAAAGCAGGGCACTGCAGTGGAGGTAGAAGC
AGAGTCTTTAGACCCGACAGTCAAGCCAGTGGATGTGGGTGGGGACGAGCCAGAGGAGAAGGTAGTTACCTCTGA
AAACGAGGCAGGAAAGGCGGTTCTTGAACAACTGGTAGGTCAAGAAGTACCACCTGCTGAAGAGTCACCAGAGGT
GCAAACAGAGGCTGCAGAGGCCTCAGCTGTAGAGGCTGGATCAGAAGTCTCTGAAAAGCCTGGGCAGGAGGCTCC
AGTTCTCCCTAAGGATGGTGCAGTCAATGGACCGTCAGTTGTAGGAGATCAGACTCCTATTGAACCACAGACTTC
TATAGAAAGACTGACAGAAACAAAAGATGGCTCAGGACTAGAGGAGAAGGTCAGGGCAAAGCTGGTTCCTAGTCA
GGAGGAGACTAAGCTGTCTGTAGAAGAGTCTGAGGCAGCTGGAGATGGGGTTGATACCAAGGTAGCCCAGGGAGC
TACTGAGAAATCACCTGAAGACAAAGTTCAGATAGCTGCTAATGAAGAGACACAAGAGAGAGAAGAACAGATGAA
AGAGGGTGAAGAAACTGAAGGCTCGGAAGAGGATGATAAAGAAAATGATAAGACTGAAGAAATGCCAAATGATTC
AGTCCTTGAAAACAAGTCTCTTCAAGAAAATGAGGAGGAGGAGATTGGGAACCTAGAGCTTGCCTGGGATATGCT
GGATTTAGCAAAGATCATTTTTAAAAGGCAAGAAACAAAAGAAGCACAGCTTTATGCTGCCCAGGCACATCTTAA
ACTCGGAGAAGTTAGTGTTGAATCTGAAAACTATGTGCAAGCTGTGGAGGAGTTCCAGTCCTGCCTTAACCTGCA
GGAACAGTACCTGGAAGCCCACGACCGTCTGCTTGCAGAGACCCACTACCAGCTGGGCTTGGCTTATGGGTACAA
CTCTCAGTATGATGAGGCAGTGGCACAGTTCAGCAAATCTATTGAAGTCATTGAGAACAGAATGGCTGTACTAAA
CGAGCAGGTGAAGGAGGCTGAAGGATCGTCTGAATACAAGAAAGAAATTGAGGAACTAAAGGAACTGCTACCCGA
AATTAGAGAGAAGATAGAAGATGCAAAGGAGTCTCAGCGTAGTGGGAATGTAGCTGAACTGGCTCTGAAAGCTAC
TCTGGTGGAGAGTTCTACTTCAGGTTTCACTCCTGGTGGAGGAGGCTCTTCAGTCTCCATGATTGCCAGTAGAAA
GCCAACAGACGGTGCTTCCTCATCAAATTGTGTGACTGATATTTCCCACCTTGTCAGAAAGAAGAGGAAACCAGA
GGAAGAGAGTCCCCGGAAAGATGATGCAAAGAAAGCCAAACAAGAGCCGGAGGTGAACGGAGGCAGTGGGGATGC
TGTCCCGAGTGGAAATGAAGTTTCGGAAAACATGGAGGAGGAGGCTGAGAATCAGCTGAAACGCGGAGCAGCAGT
GGAGGGGACACTGGAGGCTGGAGCTACAGTTGAAAGCACTGCATGTTAAGAGGGGGCACAGCCTCCTCCCAAGGG
AAAGTGTTTTTGTATATAATGTATTTTTTCACTTTTGGAGGATTCTTTTTGTATAACTTCAATAAAGATTGTAAG
CAAAAAAAAAA
```

FIGURE 175

MAMESTATAAVAADVVSADKIEDVPAPSTSADKVESLDVDSEAKKLLGLGQKHLVMGDIPAAVNAFQEAASLLGK
KYGETANECGEAFFFYGKSLLELARMENGVLGNALEGVHVEEEEGEKTEDESLVENNDNIDEEAREELREQVYDA
MGEKEEAKKTEDKSLAKPETDKEQDSEMEKGGREDMDISKSAEEPQEKVDLTLDWLTETSEEAKGGAAPEGPNEA
EVTSGKPEQEVPDAEEEKSVSGTDVQEECREKGGQEKQGEVIVSIEEKPKEVSEEQPVVTLEKQGTAVEVEAESL
DPTVKPVDVGGDEPEEKVVTSENEAGKAVLEQLVGQEVPPAEESPEVQTEAAEASAVEAGSEVSEKPGQEAPVLP
KDGAVNGPSVVGDQTPIEPQTSIERLTETKDGSGLEEKVRAKLVPSQEETKLSVEESEAAGDGVDTKVAQGATEK
SPEDKVQIAANEETQEREEQMKEGEETEGSEEDDKENDKTEEMPNDSVLENKSLQENEEEEIGNLELAWDMLDLA
KIIFKRQETKEAQLYAAQAHLKLGEVSVESENYVQAVEEFQSCLNLQEQYLEAHDRLLAETHYQLGLAYGYNSQY
DEAVAQFSKSIEVIENRMAVLNEQVKEAEGSSEYKKEIEELKELLPEIREKIEDAKESQRSGNVAELALKATLVE
SSTSGFTPGGGGSSVSMIASRKPTDGASSSNCVTDISHLVRKKRKPEEESPRKDDAKKAKQEPEVNGGSGDAVPS
GNEVSENMEEEAENQLKRGAAVEGTLEAGATVESTAC

FIGURE 176

GACTCCTAGGGGCTTGCAGACCTAGTGGGAGAGAAAGAACATCGCAGCAGCCAGGCAGAACCAGGACAGGTGAGG
TGCAGGCTGGCTTTCCTCTCGCAGCGCGGTGTGGAGTCCTGTCCTGCCTCAGGGCTTTTCGGAGCCTGGATCCTC
AAGGAACAAGTAGACCTGGCCGCGGGGAGTGGGGAGGGAAGGGGTGTCTATTGGGCAACAGGGCGGCAAAGCCCT
GAATAAAGGGGCGCAGGGCAGGCGCAAGTGCAGAGCCTTCGTTTGCCAAGTCGCCTCCAGACCGCAGAC**ATG**AAA
CTTGTCTTCCTCGTCCTGCTGTTCCTCGGGGCCCTCGGACTGTGTCTGGCTGGCCGTAGGAGAAGGAGTGTTCAG
TGGTGCGCCGTATCCCAACCCGAGGCCACAAAATGCTTCCAATGGCAAAGGAATATGAGAAAAGTGCGTGGCCCT
CCTGTCAGCTGCATAAAGAGAGACTCCCCCATCCAGTGTATCCAGGCCATTGCGGAAAACAGGGCCGATGCTGTG
ACCCTTGATGGTGGTTTCATATACGAGGCAGGCCTGGCCCCCTACAAACTGCGACCTGTAGCGGCGGAAGTCTAC
GGGACCGAAAGACAGCCACGAACTCACTATTATGCCGTGGCTGTGGTGAAGAAGGGCGGCAGCTTTCAGCTGAAC
GAACTGCAAGGTCTGAAGTCCTGCCACACAGGCCTTCGCAGGACCGCTGGATGGAATGTCCCTACAGGGACACTT
CGTCCATTCTTGAATTGGACGGGTCCACCTGAGCCCATTGAGGCAGCTGTGGCCAGGTTCTTCTCAGCCAGCTGT
GTTCCCGGTGCAGATAAAGGACAGTTCCCCAACCTGTGTCGCCTGTGTGCGGGGACAGGGGAAAACAAATGTGCC
TTCTCCTCCCAGGAACCGTACTTCAGCTACTCTGGTGCCTTCAAGTGTCTGAGAGACGGGGCTGGAGACGTGGCT
TTTATCAGAGAGAGCACAGTGTTTGAGGACCTGTCAGACGAGGCTGAAAGGGACGAGTATGAGTTACTCTGCCCA
GACAACACTCGGAAGCCAGTGGACAAGTTCAAAGACTGCCATCTGGCCCGGGTCCCTTCTCATGCCGTTGTGGCA
CGAAGTGTGAATGGCAAGGAGGATGCCATCTGGAATCTTCTCCGCCAGGCACAGGAAAAGTTTGGAAAGGACAAG
TCACCGAAATTCCAGCTCTTTGGCTCCCCTAGTGGGCAGAAAGATCTGCTGTTCAAGGACTCTGCCATTGGGTTT
TCGAGGGTGCCCCCGAGGATAGATTCTGGGCTGTACCTTGGCTCCGGCTACTTCACTGCCATCCAGAACTTGAGG
AAAAGTGAGGAGGAAGTGGCTGCCCGGCGTGCGCGGGTCGTGTGGTGTGCGGTGGGCGAGCAGGAGCTGCGCAAG
TGTAACCAGTGGAGTGGCTTGAGCGAAGGCAGCGTGACCTGCTCCTCGGCCTCCACCACAGAGGACTGCATCGCC
CTGGTGCTGAAAGGAGAAGCTGATGCCATGAGTTTGGATGGAGGATATGTGTACACTGCATGCAAATGTGGTTTG
GTGCCTGTCCTGGCAGAGAACTACAAATCCCAACAAAGCAGTGACCCTGATCCTAACTGTGTGGATAGACCTGTG
GAAGGATATCTTGCTGTGGCGGTGGTTAGGAGATCAGACACTAGCCTTACCTGGAACTCTGTGAAAGGCAAGAAG
TCCTGCCACACCGCCGTGGACAGGACTGCAGGCTGGAATATCCCCATGGGCCTGCTCTTCAACCAGACGGGCTCC
TGCAAATTTGATGAATATTTCAGTCAAAGCTGTGCCCCTGGGTCTGACCCGAGATCTAATCTCTGTGCTCTGTGT
ATTGGCGACGAGCAGGGTGAGAATAAGTGCGTGCCCAACAGCAACGAGAGATACTACGGCTACACTGGGGCTTTC
CGGTGCCTGGCTGAGAATGCTGGAGACGTTGCATTTGTGAAAGATGTCACTGTCTTGCAGAACACTGATGGAAAT
AACAATGAGGCATGGGCTAAGGATTTGAAGCTGGCAGACTTTGCGCTGCTGTGCCTCGATGGCAAACGGAAGCCT
GTGACTGAGGCTAGAAGCTGCCATCTTGCCATGGCCCCGAATCATGCCGTGGTGTCTCGGATGGATAAGGTGGAA
CGCCTGAAACAGGTGCTGCTCCACCAACAGGCTAAATTTGGGAGAAATGGATCTGACTGCCCGGACAAGTTTTGC
TTATTCCAGTCTGAAACCAAAAACCTTCTGTTCAATGACAACACTGAGTGTCTGGCCAGACTCCATGGCAAAACA
ACATATGAAAAATATTTGGGACCACAGTATGTCGCAGGCATTACTAATCTGAAAAAGTGCTCAACCTCCCCCCTC
CTGGAAGCCTGTGAATTCCTCAGGAAG**TAA**AACCGAAGAAGATGGCCCAGCTCCCCAAGAAAGCCTCAGCCATTC
ACTGCCCCCAGCTCTTCTCCCCAGGTGTGTTGGGGCCTTGGCTCCCCTGCTGAAGGTGGGGATTGCCCATCCATC
TGCTTACAATTCCCTGCTGTCGTCTTAGCAAGAAGTAAAATGAGAAATTTTGTTGATATTCAAAAAAAA

FIGURE 177

MKLVFLVLLFLGALGLCLAGRRRRSVQWCAVSQPEATKCFQWQRNMRKVRGPPVSCIKRDSPIQCIQAIAENRAD
AVTLDGGFIYEAGLAPYKLRPVAAEVYGTERQPRTHYYAVAVVKKGGSFQLNELQGLKSCHTGLRRTAGWNVPTG
TLRPFLNWTGPPEPIEAAVARFFSASCVPGADKGQFPNLCRLCAGTGENKCAFSSQEPYFSYSGAFKCLRDGAGD
VAFIRESTVFEDLSDEAERDEYELLCPDNTRKPVDKFKDCHLARVPSHAVVARSVNGKEDAIWNLLRQAQEKFGK
DKSPKFQLFGSPSGQKDLLFKDSAIGFSRVPPRIDSGLYLGSGYFTAIQNLRKSEEEVAARRARVVWCAVGEQEL
RKCNQWSGLSEGSVTCSSASTTEDCIALVLKGEADAMSLDGGYVYTACKCGLVPVLAENYKSQQSSDPDPNCVDR
PVEGYLAVAVVRRSDTSLTWNSVKGKKSCHTAVDRTAGWNIPMGLLFNQTGSCKFDEYFSQSCAPGSDPRSNLCA
LCIGDEQGENKCVPNSNERYYGYTGAFRCLAENAGDVAFVKDVTVLQNTDGNNNEAWAKDLKLADFALLCLDGKR
KPVTEARSCHLAMAPNHAVVSRMDKVERLKQVLLHQQAKFGRNGSDCPDKFCLFQSETKNLLFNDNTECLARLHG
KTTYEKYLGPQYVAGITNLKKCSTSPLLEACEFLRK

FIGURE 178A

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GCCCCGAGTGCAATCGCGGGAAGCCAGGGGTTTCCAGCTAGGACACAGCAGGTCGTGATCCGGGTCGGGACACTGC
CTGGCAGAGGCTGCGAGCATGGGGCCCTGGGGCTGGAAATTGCGCTGGACCGTCGCCTTGCTCCTCGCCGCGGCG
GGGACTGCAGTGGGCGACAGATGTGAAAGAAACGAGTTCCAGTGCCAAGACGGGAAATGCATCTCCTACAAGTGG
GTCTGCGATGGCAGCGCTGAGTGCCAGGATGGCTCTGATGAGTCCCAGGAGACGTGCTTGTCTGTCACCTGCAAA
TCCGGGGACTTCAGCTGTGGGGGCCGTGTCAACCGCTGCATTCCTCAGTTCTGGAGGTGCGATGGCCAAGTGGAC
TGCGACAACGGCTCAGACGAGCAAGGCTGTCCCCCCAAGACGTGCTCCCAGGACGAGTTTCGCTGCCACGATGGG
AAGTGCATCTCTCGGCAGTTCGTCTGTGACTCAGACCGGGACTGCTTGGACGGCTCAGACGAGGCCTCCTGCCCG
GTGCTCACCTGTGGTCCCGCCAGCTTCCAGTGCAACAGCTCCACCTGCATCCCCCAGCTGTGGGCCTGCGACAAC
GACCCCGACTGCGAAGATGGCTCGGATGAGTGGCCGCAGCGCTGTAGGGGTCTTTACGTGTTCCAAGGGGACAGT
AGCCCCTGCTCGGCCTTCGAGTTCCACTGCCTAAGTGGCGAGTGCATCCACTCCAGCTGGCGCTGTGATGGTGGC
CCCGACTGCAAGGACAAATCTGACGAGGAAACTGCGCTGTGGCCACCTGTCGCCCTGACGAATTCCAGTGCTCT
GATGGAAACTGCATCCATGGCAGCCGGCAGTGTGACCGGGAATATGACTGCAAGGACATGAGCGATGAAGTTGGC
TGCGTTAATGTGACACTCTGCGAGGGACCCAACAAGTTCAAGTGTCACAGCGGCGAATGCATCACCCTGGACAAA
GTCTGCAACATGGCTAGAGACTGCCGGGACTGGTCAGATGAACCCATCAAAGAGTGCGGGACCAACGAATGCTTG
GACAACAACGGCGGCTGTTCCCACGTCTGCAATGACCTTAAGATCGGCTACGAGTGCCTGTGCCCCGACGGCTTC
CAGCTGGTGGCCCAGCGAAGATGCGAAGATATCGATGAGTGTCAGGATCCCGACACCTGCAGCCAGCTCTGCGTG
AACCTGGAGGGTGGCTACAAGTGCCAGTGTGAGGAAGGCTTCCAGCTGGACCCCCACACGAAGGCCTGCAAGGCT
GTGGGCTCCATCGCCTACCTCTTCTTCACCAACCGGCACGAGGTCAGGAAGATGACGCTGGACCGGAGCGAGTAC
ACCAGCCTCATCCCCAACCTGAGGAACGTGGTCGCTCTGGACACGGAGGTGGCCAGCAATAGAATCTACTGGTCT
GACCTGTCCCAGAGAATGATCTGCAGCACCCAGCTTGACAGAGCCCACGGCGTCTCTTCCTATGACACCGTCATC
AGCAGGGACATCCAGGCCCCCGACGGGCTGGCTGTGGACTGGATCCACAGCAACATCTACTGGACCGACTCTGTC
CTGGGCACTGTCTCTGTTGCGGATACCAAGGGCGTGAAGAGGAAAACGTTATTCAGGGAGAACGGCTCCAAGCCA
AGGGCCATCGTGGTGGATCCTGTTCATGGCTTCATGTACTGGACTGACTGGGGAACTCCCGCCAAGATCAAGAAA
GGGGGCCTGAATGGTGTGGACATCTACTCGCTGGTGACTGAAAACATTCAGTGGCCCAATGGCATCACCCTAGAT
CTCCTCAGTGGCCGCCTCTACTGGGTTGACTCCAAACTTCACTCCATCTCAAGCATCGATGTCAATGGGGGCAAC
CGGAAGACCATCTTGGAGGATGAAAAGAGGCTGGCCCACCCCTTCTCCTTGGCCGTCTTTGAGGACAAAGTATTT
TGGACAGATATCATCAACGAAGCCATTTTCAGTGCCAACCGCCTCACAGGTTCCGATGTCAACTTGTTGGCTGAA
AACCTACTGTCCCCAGAGGATATGGTCCTCTTCCACAACCTCACCCAGCCAAGAGGAGTGAACTGGTGTGAGAGG
ACCACCCTGAGCAATGGCGGCTGCCAGTATCTGTGCCTCCCTGCCCCGCAGATCAACCCCCACTCGCCCAAGTTT
ACCTGCGCCTGCCCGGACGGCATGCTGCTGGCCAGGGACATGAGGAGCTGCCTCACAGAGGCTGAGGCTGCAGTG
GCCACCCAGGAGACATCCACCGTCAGGCTAAAGGTCAGCTCCACAGCCGTAAGGACACAGCACACAACCACCCGG
CCTGTTCCCGACACCTCCCGGCTGCCTGGGGCCACCCCTGGGCTCACCACGGTGGAGATAGTGACAATGTCTCAC
CAAGCTCTGGGCGACGTTGCTGGCAGAGGAAATGAGAAGAAGCCCAGTAGCGTGAGGGCTCTGTCCATTGTCCTC
CCCATCGTGCTCCTCGTCTTCCTTTGCCTGGGGGTCTTCCTTCTATGGAAGAACTGGCGGCTTAAGAACATCAAC
AGCATCAACTTTGACAACCCCGTCTATCAGAAGACCACAGAGGATGAGGTCCACATTTGCCACAACCAGGACGGC
TACAGCTACCCCTCGAGACAGATGGTCAGTCTGGAGGATGACGTGGCGTGAACATCTGCCTGGAGTCCCGCCCCT
GCCCAGAACCCTTCCTGAGACCTCGCCGGCCTTGTTTATTCAAAGACAGAGAAGACCAAAGCATTGCCTGCCAG
AGCTTTGTTTTATATATTTATTCATCTGGGAGGCAGAACAGGCTTCGGACAGTGCCCATGCAATGGCTTGGGTTG
GGATTTTGGTTTCTTCCTTTCCTGTGAAGGATAAGAGAAACAGGCCCGGGGGGACCAGGATGACACCTCCATTTC
TCTCCAGGAAGTTTTGAGTTTCTCTCCACCGTGACACAATCCTCAAACATGGAAGATGAAAGGGCAGGGGATGTC
AGGCCCAGAGAAGCAAGTGGCTTTCAACACACAACAGCAGATGGCACCAACGGGACCCCCTGGCCCTGCCTCATC
CACCAATCTCTAAGCCAAACCCCTAAACTCAGGAGTCAACGTGTTTACCTCTTCTATGCAAGCCTTGCTAGACAG
CCAGGTTAGCCTTTGCCCTGTCACCCCCGAATCATGACCCACCCAGTGTCTTTCGAGGTGGGTTTGTACCTTCCT
TAAGCCAGGAAAGGGATTCATGGCGTCGGAAATGATCTGGCTGAATCCGTGGTGGCACCGAGACCAAACTCATTC
ACCAAATGATGCCACTTCCCAGAGGCAGAGCCTGAGTCACCGGTCACCCTTAATATTTATTAAGTGCCTGAGACA
CCCGGTTACCTTGGCCGTGAGGACACGTGGCCTGCACCCAGGTGTGGCTGTCAGGACACCAGCCTGGTGCCCATC
CTCCCGACCCCTACCCACTTCCATTCCCGTGGTCTCCTTGCACTTTCTCAGTTCAGAGTTGTACACTGTGTACAT
TTGGCATTTGTGTTATTATTTTGCACTGTTTTCTGTCGTGTGTGTTGGGATGGGATCCCAGGCCAGGGAAAGCCC
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FIGURE 178B

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GTGTCAATGAATGCCGGGGACAGAGAGGGGCAGGTTGACCGGGACTTCAAAGCCGTGATCGTGAATATCGAGAAC
TGCCATTGTCGTCTTTATGTCCGCCCACCTAGTGCTTCCACTTCTATGCAAATGCCTCCAAGCCATTCACTTCCC
CAATCTTGTCGTTGATGGGTATGTGTTTAAAACATGCACGGTGAGGCCGGGCGCAGTGGCCTCACGCCTGTAATC
CCAGCACTTTGGGAGGCCGAGGCGGGTGGATCATGAGGTCAGGAGATCGAGACCATCCTGGCTAACAAGGTGAAA
CCCCGTCTCTACTAAAAATACAAAAAATTAGCCGGGCGCGGTGGTGGGCACCTGTAGTCCCAGCTACTCGGGAGG
CTGAGGCAGGAGAATGGTGTGAACCCGGGAAGCGGAGCTTGCAGTGAGCCGAGATTGCGCCACTGCAGTCCGCAG
TCTGGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAACAAAACAAAAAAAAACCATGCATGGTGCATCAGC
AGCCCATGGCCTCTGGCCAGGCATGGCGAGGCTGAGGTGGGAGGATGGTTTGAGCTCAGGCATTTGAGGCTGTCG
TGAGCTATGATTATGCCACTGCTTTCCAGCCTGGGCAACATAGTAAGACCCCATCTCTTAAAAAATGAATTTGGC
CAGACACAGGTGCCTCACGCCTGTAATCCCAGCACTTTGGGAGGCTGAGCTGGATCACTTGAGTTCAGGAGTTGG
AGACCAGGCCTGAGCAACAAAGCGAGATCCCATCTCTACAAAAACCAAAAAGTTAAAAATCAGCTGGGTATGGTG
GCACGTGCCTGTGATCCCAGCTACTTGGGAGGCTGAGGCAGGAGGATCGCCTGAGCCCAGGAGGTGGAGGTTGCA
GTGAGCCATGATCGAGCCACTGCACTCCAGCCTGGGCAACAGATGAAGACCCTATTTCAGAAATACAACTATAAA
AAAAATAAATAAATCCTCCAGTCTGGATCGTTTGACGGGACTTCAGGTTCTTTCTGAAATCGCCGTGTTACTGTT
GCACTGATGTCCGGAGAGACAGTGACAGCCTCCGTCAGACTCCCGCGTGAAGATGTCACAAGGGATTGGCAATTG
TCCCCAGGGACAAAACACTGTGTCCCCCCCAGTGCAGGGAACCGTGATAAGCCTTTCTGGTTTCGGAGCACGTAA
ATGCGTCCCTGTACAGATAGTGGGGATTTTTTGTTATGTTTGCACTTTGTATATTGGTTGAAACTGTTATCACTT
ATATATATATACACACATATATATAAAATCTATTTATTTTTGCAAACCCTGGTTGCTGTATTTGTTCAGTGAC
TATTCTCGGGGCCCTGTGTAGGGGGTTATTGCCTCTGAAATGCCTCTTCTTTATGTACAAAGATTATTTGCACGA
ACTGGACTGTGTGCAACGCTTTTTGGGAGAATGATGTCCCCGTTGTATGTATGAGTGGCTTCTGGGAGATGGGTG
TCACTTTTTAAACCACTGTATAGAAGGTTTTTGTAGCCTGAATGTCTTACTGTGATCAATTAAATTTCTTAAATG
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FIGURE 179

MGPWGWKLRWTVALLLAAAGTAVGDRCERNEFQCQDGKCISYKWVCDGSAECQDGSDESQETCLSVTCKSGDFSC
GGRVNRCIPQFWRCDGQVDCDNGSDEQGCPPKTCSQDEFRCHDGKCISRQFVCDSDRDCLDGSDEASCPVLTCGP
ASFQCNSSTCIPQLWACDNDPDCEDGSDEWPQRCRGLYVFQGDSSPCSAFEFHCLSGECIHSSWRCDGGPDCKDK
SDEENCAVATCRPDEFQCSDGNCIHGSRQCDREYDCKDMSDEVGCVNVTLCEGPNKFKCHSGECITLDKVCNMAR
DCRDWSDEPIKECGTNECLDNNGGCSHVCNDLKIGYECLCPDGFQLVAQRRCEDIDECQDPDTCSQLCVNLEGGY
KCQCEEGFQLDPHTKACKAVGSIAYLFFTNRHEVRKMTLDRSEYTSLIPNLRNVVALDTEVASNRIYWSDLSQRM
ICSTQLDRAHGVSSYDTVISRDIQAPDGLAVDWIHSNIYWTDSVLGTVSVADTKGVKRKTLFRENGSKPRAIVVD
PVHGFMYWTDWGTPAKIKKGGLNGVDIYSLVTENIQWPNGITLDLLSGRLYWVDSKLHSISSIDVNGGNRKTILE
DEKRLAHPFSLAVFEDKVFWTDIINEAIFSANRLTGSDVNLLAENLLSPEDMVLFHNLTQPRGVNWCERTTLSNG
GCQYLCLPAPQINPHSPKFTCACPDGMLLARDMRSCLTEAEAAVATQETSTVRLKVSSTAVRTQHTTTRPVPDTS
RLPGATPGLTTVEIVTMSHQALGDVAGRGNEKKPSSVRALSIVLPIVLLVFLCLGVFLLWKNWRLKNINSINFDN
PVYQKTTEDEVHICHNQDGYSYPSRQMVSLEDDVA

FIGURE 180

AAGCG**ATG**GCTGGGCCCGCGTGGATCTCCAAGGTCTCTCGGCTGCTGGGGGCATTCCACAACCCAAAACAGGTGA
CCAGAGGTTTTACTGGTGGTGTTCAGACAGTAACTTTAATTCCAGGAGATGGTATTGGCCCAGAAATTTCAGCTG
CAGTTATGAAGATTTTTGATGCTGCCAAAGCACCTATTCAGTGGGAGGAGCGGAACGTCACTGCCATTCAAGGAC
CTGGAGGAAAGTGGATGATCCCTTCAGAGGCTAAAGAGTCCATGGATAAGAACAAGATGGGCTTGAAAGGCCCTT
TGAAGACCCCAATAGCAGCCGGTCACCCATCTATGAATTTACTGCTGCGCAAAACATTTGACCTTTACGCGAATG
TCCGACCATGTGTCTCTATCGAAGGCTATAAAACCCCTTACACCGATGTAAATATTGTGACCATTCGAGAGAACA
CAGAAGGAGAATACAGTGGAATTGAGCATGTGATTGTTGATGGAGTCGTGCAGAGTATCAAGCTCATCACCGAGG
GGGCGAGCAAGCGCATTGCTGAGTTTGCCTTTGAGTATGCCCGGAACAACCACCGGAGCAACGTCACGGCGGTGC
ACAAAGCCAACATCATGCGGATGTCAGATGGGCTTTTTCTACAAAAATGCAGGGAAGTTGCAGAAAGCTGTAAAG
ATATTAAATTTAATGAGATGTACCTTGATACAGTATGTTTGAATATGGTACAAGATCCTTCCCAATTTGATGTTC
TTGTTATGCCAAATTTGTATGGAGACATCCTTAGTGACTTGTGTGCAGGATTGATCGGAGGTCTCGGTGTGACAC
CAAGTGGCAACATTGGAGCCAATGGGGTTGCAATTTTTGAGTCGGTTCATGGGACGGCTCCAGACATTGCAGGCA
AGGACATGGCGAATCCCACAGCCCTCCTGCTCAGTGCCGTGATGATGCTGCGCCACATGGGACTTTTTGACCATG
CTGCAAGAATTGAGGCTGCGTGTTTTGCTACAATTAAGGACGGAAAGAGCTTGACAAAAGATTTGGGAGGCAATG
CAAAATGCTCAGACTTCACAGAGGAAATCTGTCGCCGAGTAAAAGATTA**GATTAA**CACTTCTACAACTGGCATT
TACATCAGTCACTCTAAATGGACACCACATGAACCTCTGTTTAGAATACCTACGTATGTATGCATTGGTTTGCTT
GTTTCTTGACAGTACATTTTTAGATCTGGCCTTTTCTTAACAAAATCTGTGCAAAAGATGCAGGTGGATGTCCCT
AGGTCTGTTTTCAAAGAACTTTTTCCAAGTGCTTGTTTTATTTATTAAGTGTCTACCTGGTAAATGTTTTTTTTG
TAÀACTCTGAGTGGACTGTATCATTTGCTATTCTAAACCATTTTACACTTAAGTTAAAATAGTTTCTCTTCAGCT
GTAAATAACAGGATACAGAATTAACAAGAGAAAATGTCTAACTTTTTAAGAAAAACCTTATTTTCTTCGGTTTTT
GAAAAACATAATGGAAATAAAACAGGATATTGACATAATAGCACAAAATGACACTCTTCTAAAACTAAATGGGCA
CAAGAGAATTTTCCTGGGAAAGTTCACATCAAAAAGAGTGAATGTGGTATATTTCTAAATGATATGGAAAATAGA
GACAGATTTGTCCTTTACAGAAATTACTGAGTGTGAATAAAAACTTCAGATCCAAGAAATATATAATGAGAGATA
TAATTTTTGTTAATAAGACAAAGGTAATATATTGGATACAAAGACACAAATGTATTGTGTGTTCAATTATTTTGT
TGTCTTGAGATTTAATATTCTTTCCAAGAGCTTTTAATGAAGCAGAGAGCTAGTACTTCATTTTCACTGGATACA
TTTTCAGCATCATGAGTTGTCACAGCCTCTGAGCCCCTGATCTGAAGCCAGAAGGGCTGAGTGTATTGTAAACTT
ATTCTTGCATGTTGCTGTCTGGGAATGGACCACACTACAGCAGGTAGTTCTGGGGGCGATACTGCCGAAAGGCCC
GAACACATGTATTTTGGCTGCAATTGAGGAACTTGGGATGCTATTAATTTTGTATTTCAGCAACTGCCCCTTCTC
CTATCCCAAAGCACCAATTACTGCCCTCTGCCTCAGCAGTACCAGTATAAGATGACATTCCAAAGACTGGAGGCA
ACTCAGCCTGAGTTAATTCACAAAATTATGCCATGCTGGGGCTTGAGCTTGAGCTTGGGCTTAGGCTTGGGCTCA
GCTTTTGACCCTCAGGCATCTCCTTTTCCTTCCTGTCTTCCTCTCCCTTCTCCTCTGCTGCAGCATGATTTTCTT
AATCTTCAGACACTCACTATTTTCATGAACAGTTACCCTCTGTCCCCACAACCAAAGACAACTCATGGCCTCCTT
TGGCCCTTGTGTAACATTGCAAACCTGTGGCTTTGCAAAATGTACCCAGGTCACAAGGGGATTTTTTTTTTTTA
GCAATGATATCCCTGTCTGGGTCACTTTTTAAGCTTGTAACCGCCCCCCCCAGACTTATAATCTTAAATGTATTTT
CCTTTGTTTAAGCTGCTGCTTCCTCTGTTTCATTGGATTGTGCCAGTTATCAGTGGCTCTTGGGTTCAAAGTAAT
AAA

FIGURE 181

MAGPAWISKVSRLLGAFHNPKQVTRGFTGGVQTVTLIPGDGIGPEISAAVMKIFDAAKAPIQWEERNVTAIQGPG
GKWMIPSEAKESMDKNKMGLKGPLKTPIAAGHPSMNLLLRKTFDLYANVRPCVSIEGYKTPYTDVNIVTIRENTE
GEYSGIEHVIVDGVVQSIKLITEGASKRIAEFAFEYARNNHRSNVTAVHKANIMRMSDGLFLQKCREVAESCKDI
KFNEMYLDTVCLNMVQDPSQFDVLVMPNLYGDILSDLCAGLIGGLGVTPSGNIGANGVAIFESVHGTAPDIAGKD
MANPTALLLSAVMMLRHMGLFDHAARIEAACFATIKDGKSLTKDLGGNAKCSDFTEEICRRVKDLD

FIGURE 182A

CAAGTGCCGTCGCCGCGCCCCTTCCCCCTCCCGCCTCCCCGGCCCCCTCCCCGGAACCGGCGGTCGAGCTACGGT
CGCGGACGAGTGGAACCGAGACTGCCCCGCGGAGCCGCCGGTATGAGCGCCCCTCGCCACCCCGTGTCCCAGGCC
CGGCCTTTCTGACAAGAGCTAGACTTCGGGCTCCTTGAGGATATTCAGTTTTGTATGTTTGAATATCCTCTCACC
ATGTTCAGCATAAAGTACCATTCTTAATGATTATCCTCAACAAGACAGGTGTGAGAGGGTTGCTGTTGCATTGCA
ATC**ATG**GTGCAAAAATACCAGTCCCCAGTGAGAGTGTACAAATACCCCTTTGAATTAATTATGGCTGCCTATGAA
AGGAGGTTCCCTACATGTCCTTTGATTCCGATGTTCGTGGGCAGTGACACTGTGAGTGAATTCAAGAGCGAAGAT
GGGGCTATTCATGTCATTGAAAGGCGCTGCAAGCTGGATGTAGATGCACCCAGACTGCTGAAGAAGATTGCAGGA
GTTGATTATGTTTATTTTGTCCAGAAAAACTCACTGAATTCTCGGGAACGTACTTTGCACATTGAGGCTTATAAT
GAAACGTTTTCCAATCGGGTCATCATTAATGAGCATTGCTGCTACACCGTTCACCCTGAAAATGAAGATTGGACC
TGTTTTGAACAGTCTGCAAGTTTAGATATTAAATCTTTCTTTGGTTTTGAAAGTACAGTGGAAAAAATTGCAATG
AAACAATATACCAGCAACATTAAAAAAGGAAAGGAAATCATCGAATACTACCTTCGCCAATTAGAAGAAGAAGGC
ATAACCTTTGTGCCCCGTTGGAGTCCGCCTTCCATCACGCCCTCTTCAGAGACATCTTCATCATCCTCCAAGAAA
CAAGCAGCGTCCATGGCCGTCGTCATCCCAGAAGCTGCCCTCAAGGAGGGGCTGAGTGGTGATGCCCTCAGCAGC
CCCAGTGCACCTGAGCCCGTGGTGGGCACCCCTGACGACAAACTAGATGCCGACCACATCAAGAGATACCTGGGC
GATTTGACTCCGCTGCAGGAGAGCTGCCTCATTAGACTTCGCCAGTGGCTCCAGGAGACCCACAAGGGCAAAATT
CCAAAAGATGAGCATATTCTTCGGTTCCTCCGTGCACGGGATTTTAATATTGACAAAGCCAGAGAGATCATGTGT
CAGTCTTTGACGTGGAGAAAGCAGCATCAGGTAGACTACATTCTTGAAACCTGGACCCCTCCTCAGGTCCTTCAG
GATTACTACGCGGGAGGCTGGCATCATCACGACAAAGATGGGCGGCCCCTCTACGTGCTCAGGCTGGGGCAGATG
GACACCAAAGGCTTGGTGAGAGCGCTCGGGGAGGAAGCCCTGCTGAGATACGTTCTCTCCGTAAATGAAGAACGG
CTAAGGCGATGCGAAGAGAATACAAAAGTCTTTGGTCGGCCTATCAGCTCATGGACCTGCCTGGTGGACTTGGAA
GGGCTGAACATGCGCCACTTGTGGAGACCTGGTGTGAAAGCGCTGCTGCGGATCATCGAGGTGGTGGAGGCCAAC
TACCCTGAGACACTGGGCCGCCTTCTCATCCTGCGGGCGCCCAGGGTATTTCCTGTGCTCTGGACGCTGGTTAGT
CCGTTCATTGATGACAACACCAGAAGGAAGTTCCTCATTTATGCAGGAAATGACTACCAGGGTCCTGGAGGCCTG
CTGGATTACATCGACAAAGAGATTATTCCAGATTTCCTGAGTGGGGAGTGCATGTGCGAAGTGCCAGAGGGTGGA
CTGGTCCCCAAATCTCTGTACCGGACTGCAGAGGAGCTGGAGAACGAAGACCTGAAGCTCTGGACTGAGACCATC
TACCAGTCTGCAAGCGTCTTCAAAGGAGCCCCACATGAGATTCTCATTCAGATTGTGGATGCCTCGTCAGTCATC
ACTTGGGATTTCGACGTGTGCAAAGGGGACATTGTGTTTAACATCTATCACTCCAAGAGGTCGCCACAACCACCC
AAAAAGGACTCCCTGGGAGCCCACAGCATCACCTCTCCGGGTGGGAACAATGTGCAGCTCATAGACAAAGTCTGG
CAGCTGGGCCGCGACTACAGCATGGTGGAGTCGCCTCTGATCTGCAAAGAAGGAGAAAGCGTGCAGGGTTCCCAT
GTGACCAGGTGGCCGGGCTTCTACATCCTGCAGTGGAAATTCCACAGCATGCCTGCGTGCGCCGCCAGCAGCCTT
CCCCGGGTGGACGACGTGCTTGCGTCCCTGCAGGTCTCTTCGCACAAGTGTAAAGTGATGTACTACACCGAGGTG
ATCGGCTCGGAGGATTTCAGAGGTTCCATGACGAGCCTGGAGTCCAGCCACAGCGGCTTCTCCCAGCTGAGTGCC
GCCACCACCTCCTCCAGCCAGTCCCACTCCAGCTCCATGATCTCCAGG**TAG**TGCCGCGCTGCCTGCACCTAGTGT
GCAGAGGGGACGGCCGCCCCTCCTCGGACAGCAGCTGCACCCGCCCACCCAGCGGCGACATTGTACAGACTCCTC
TCACCTCTAGATAGCAAATAGCTCTCAGATGGTAAACGTAGTCGTTTGATCCCAAAACTACCTTGGCAGGTAGTT
TTAACTCTGATCCTAACTTAACTCAATAGCCATAGATTTTGTATACGTTGTGCACAAAATCCAACCAGAGCGCAA
GGGCTCTCTTGAAAGAAAAGTAGTTTCTGTACCAATTAAAGGATTGACGTGGTCTCAGATATTGATGCAAAAAAT
TTTTCCAACGAACTCCGCATTGTCCATTAGTGAATGAATTCCTGTGACATCCTCCAGAGATGGCCCCTCCTCACC
TGGGACGGAAGCTGCCAGCTCGCTTCCCCCAAGCTGCCTCATGGCCCGCACGCCGCCTCACGGCCCCCATGCTTC
CCGCCAGTCAAGATGGTCTGTGGACTTAGGGCCAGCCCTTGAGGTCCTTATCCTCTGAGGATTCAGAGGTTGCCT
GCGGAGTACCTTGTCCCAGGGCCAGACACACCCACACCACCCACTGTCTGCAGTGGGGCCGGGGGCTCAGGAGGG
GCTCTCAGGGACTCCTGGTGACTCCAGGAAAATGCTGCCATCGTTAAACATTACTTTCTCTTTCCTCCTTTTCAA
ATCTTTTTGATACTTTTTAGAGCAGGATTTTTCTGTATGTGAACTTGGGTGGGGGGGTTCTTCCCGTTTCCTTCC
GTGCGTCGCCCCTCTCACCTGCAGTCAGCTCCCAGCCCAGTGTAGGCCATCTCCTCTGTGCCCTCTGGAGGCTCA
TTGTCTCAGAGCCCAGACAGTTCCAGCCACTAGGAGGCCGTCTTGGAACCAGCAAGTCGCATTTGCCACTTGACA
CTGTCCATGGGGTTTTATTAGTAGCTAAGCAGCAGCTCTCGCATCCACTTCAGGGTGGCGTGTGGCATGTAGGAG
TCCTGCTTCTTTGTACATGGGAATTGTGGACTCATGCGTGTGTGTGTGTGCATGTGCTGTGTGTGTGCATGTGTG
CATGACGGTGGGGGTGCTGGGGGGACGGGGTGAGTGGAAACTTAGTTTGAGTAATGAAGGAATCTTCACAGAAGC

FIGURE 182B

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AAATCAGAATATGGGATTTGTTTGCCTTTTACATTTTGTTTAATTCCTGATTTTAAAGCCTGCTCTATCTGGTAC
AGGCCCTTATTTTTTCAGCTTTTTATGGGAAAAGCAGGTTATTTGAGAATCTGTCCAGAAGTTGCATAGGGGATG
GCCTCCACGATAAGGACATGCAACACGTGTTTCTGTGTGCAGCAGAGGCCGTGTTTTTCATGCCAAACCCCACGC
GGCTGTCAACTGTGTGCGTGGTAGGCATGGAGATCCTGGTTGTGCCGTCTCAGCTCCGCTCTGAAGGCACTGTGT
GGGTGCTGCGTGACTGGAGAGCTGTGTGGAGGCCATGTGTGCCCCGTGCAGGGATCAGGAGGGCGGGGGAGGGAC
CGAGCAGCCCTCTTGCCCGGTCGGGTCAGCCCTAGTGGCTGCCTGCACACTGTAGACGTCCCAGGGCCTGTGCTG
TGATCACCTGCCTTTGGACCACATTTGTGTTTGCTCTTAGAGATCGAGCTCCTCAGTGGTACCTGAAGCCTTTGC
TTCCGGAAAGCGCGGTAGGGTTCGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGCTA
GTAGGTAGGGTTAGTAGGTAGGGTTCGTAGGTAGGGCTGGTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGG
TTCGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGTA
GGGTTCGTAGGTAGGGCTGGTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGTTCGTAGGTAGGGCTAGTAG
GTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGTAGGGTTCGTAGGTAGGGCTGG
TAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGTAGGGC
TAGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGTAGGGTTCGTAGGTAGGGCTGGTAGGTAGGGTTAGTAGGTAG
GGCTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGG
TAGGGCTAGTAGGTAGGGTTCGTAGGTAGGGTTCGTAGGTAGGGTTCGTAGGTAGGGTTAGTAGCGCGTCTGTGC
TGCTTCCACCTGGTGCTTCCTGTTCCCAAATCACAAGGGCCTGAAGGTGGTCCCTGCTTTCTCTTTCTCTTTCTC
TGTGTCTCAGATGGCGATTTTGCTGACAGCTGCCAAGAAAATGCTTCACTCAACAGTCCTCATGTGCCCAGAGAT
GTTTATAGAACTGTTTGAATTGCAGCCATCCCCTGCCCCCTCCCAGGCTGAAGATCTGTTCTTTTTAAGTTGATT
CGGGAGTGGCATTCTTTTATACCCAAAGACTGTAGTGCATCTTGAAGAGCTCAAAGCACATGACCGCACAAATGC
TTACAGGGTTTCCTCCCGAGTAATCCAATCTCACTCCCCTTGTAAGGGAATTCTGGGGCAGCTATGGTTTGAGTA
TGCAGTTTGCATCGTGTTTCTACCTTTAGTACCTTGCCACTCTTTTAAAACGCTGCTGTCATTTCCCATTTCTTA
GTACTAATGATTCTTTGATTCTCCCTCTATTATGTCTTAATTCACTTTCCTTCCTAAATTTGTTATTTGCATATC
AAATTCTGTAAATGTTTTGTAAACATATTACCTCACTTGGTAATACAATACTGATAGTCTTTAAAAGATTTTTTT
ATTGTTATCAATAATAAATGTGAACTATTTAAAG
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FIGURE 183

MVQKYQSPVRVYKYPFELIMAAYERRFPTCPLIPMFVGSDTVSEFKSEDGAIHVIERRCKLDVDAPRLLKKIAGV
DYVYFVQKNSLNSRERTLHIEAYNETFSNRVIINEHCCYTVHPENEDWTCFEQSASLDIKSFFGFESTVEKIAMK
QYTSNIKKGKEIIEYYLRQLEEEGITFVPRWSPPSITPSSETSSSSSKKQAASMAVVIPEAALKEGLSGDALSSP
SAPEPVVGTPDDKLDADHIKRYLGDLTPLQESCLIRLRQWLQETHKGKIPKDEHILRFLRARDFNIDKAREIMCQ
SLTWRKQHQVDYILETWTPPQVLQDYYAGGWHHHDKDGRPLYVLRLGQMDTKGLVRALGEEALLRYVLSVNEERL
RRCEENTKVFGRPISSWTCLVDLEGLNMRHLWRPGVKALLRIIEVVEANYPETLGRLLILRAPRVFPVLWTLVSP
FIDDNTRRKFLIYAGNDYQGPGGLLDYIDKEIIPDFLSGECMCEVPEGGLVPKSLYRTAEELENEDLKLWTETIY
QSASVFKGAPHEILIQIVDASSVITWDFDVCKGDIVFNIYHSKRSPQPPKKDSLGAHSITSPGGNNVQLIDKVWQ
LGRDYSMVESPLICKEGESVQGSHVTRWPGFYILQWKFHSMPACAASSLPRVDDVLASLQVSSHKCKVMYYTEVI
GSEDFRGSMTSLESSHSGFSQLSAATTSSSQSHSSSMISR

FIGURE 184

AATTCCGCGGAATCATCGGAATCCTTCACC**ATG**GCATCCAGCCCGGCCCAGCGTCGGCGAGGCAATGATCCTCTC
ACCTCCAGCCCTGGCCGAAGCTCCCGGCGTACTGATGCCCTCACCTCCAGCCCTGGCCGTGACCTTCCACCATTT
GAGGATGAGTCCGAGGGGCTCCTAGGCACAGAGGGGCCCCTGGAGGAAGAAGAGGATGGAGAGGAGCTCATTGGA
GATGGCATGGAAAGGGACTACCGCGCCATCCCAGAGCTGGACGCCTATGAGGCCGAGGGACTGGCTCTGGATGAT
GAGGACGTAGAGGAGCTGACGGCCAGTCGAAGGGAGGCAGCAGACGGGCCATGCGGCACGGTGACCGGGAGCTGG
CCGGGGCTGGGCGCATGCGCCGTGGGCTCCTGTATGACAGCGATGAGGAGGACGAGGAGCGCCCTGCCCGCAAGC
GCCGCCAGTGGAGCCGGCACGGAGGACGGCGAGGAGGACGAGCAGATGATTGAGAGCATCGAGAACCTGGAGGAT
CTCAAAGGCCACTCTGTGCGCGAGTGGGTGAGCATGGCGGGCCCCCGGCTGGAGATCCACCACCGCTTCAAGAAC
TTCCTGCGCACTCACGTCGACAGCCACGGCCACAACGTCTTCAAGGAGCGCATCAGCGACATGTGCAAAGAGAAC
CGTGAGAGCCTGGTGGTGAACTATGAGGACTTGGCAGCCAGGGAGCACGTGCTGGCCTACTTCCTGCCTGAGGCA
CCGGCGGAGCTGCTGCAGATCTTTGATGAGGCTGCCCTGGAGGTGGTACTGGCCATGTACCCCAAGTACGACCGC
ATCACCAACCACATCCATGTCCGCATCTCCCACCTGCCTCTGGTGGAGGAGCTGCGCTCGCTGAGGCAGCTGCAT
CTGAACCAGCTGATCCGCACCAGTGGGGTGGTGACCAGCTGCACTGGCGTCCTGCCCCAGCTCAGCATGGTCAAG
TACAACTGCAACAAGTGCAATTTCGTCCTGGGTCCTTTCTGCCAGTCCCAGAACCAGGAGGTGAAACCAGGCTCC
TGTCCTGAGTGCCAGTCGGCCGGCCCCTTTGAGGTCAACATGGAGGAGACCATCTATCAGAACTACCAGCGTATC
CGAATCCAGGAGAGTCCAGGCAAAGTGGCGGCTCGGCGGCTGCCCCGCTCCAAGGACGCCATTCTCCTCGCAGAT
CTGGTGGACAGCTGCAACGCAGGAGACGAGATAGAGCTGACTGGCATCTATCACAACAACTATGATGGCTCCCTC
AACACTGCCAATGGCTTCCCTGTCTTTGCCACTGTCATCCTAGCCAACCACGTGGCCAAGAAGGACAACAAGGTT
GCTGTAGGGGAACTGACCGATGAAGATGTGAAGATGATCACTAGCCTCTCCAAGGATCAGCAGATCGGAGAGAAG
ATCTTTGCCAGCATTGCTCCTTCCATCTATGGTCATGAAGACATCAAGAGAGGCCCTGCTCTGGCCCTGTTCGGA
GGGGAGCCCAAAAACCCAGGTGGCAAGCACAAGGTACGTGGTGATATCAACGTGCTCTTGTGCGGAGACCCTGGC
ACAGCGAAGTCGCAGTTTCTCAAGTATATTGAGAAAGTGTCCAGCCGAGCCATCTTCACCACTGGCCAGGGGGCG
TCGGCTGTGGCCGTCACGGCGTATGTCCAGCGGCACCCTGTCAGCAGGGAGTGGACCTTGGAGGCTGGGGCCCTG
GTTCTGGCTGACCGAGGAGTGTGTCTCATTGATGAATTTGACAAGATGAATGACCAGGACAGAACCAGCATCCAT
GAGGCCATGGAGCAACAGAGCATCTCCATCTCGAAGGCTGGCATCGTCACCTCCCTGCAGGCTCGCTGCACGGTC
ATTGCTGCCGCCAACCCCATAGGAGGGCGCTACGACCCCTCGCTGACTTTCTCTGAGAACGTGGACCTCACAGAG
CCCATCATCTCACGCTTTGACATCCTGTGTGTGGTGAGGGACACCGTGGACCCAGTCCAGGACGAGATGCTGGCC
CGCTTCGTGGTGGGCAGCCACGTCAGACACCACCCCAGCAACAAGGAGGAGGAGGGGCTGGCCAATGGCAGCGCT
GCTGAGCCCGCCATGCCCAACACGTATGGCGTGGAGCCCCTGCCCCAGGAGGTCCTGAAGAAGTACATCATCTAC
GCCAAGGAGAGGGTCCACCCGAAGCTCAACCAGATGGACCAGGACAAGGTGGCCAAGATGTACAGTGACCTGAGG
AAAGAATCTATGGCGACAGGCAGCATCCCCATTACGGTGCGGCACATCGAGTCCATGAGTCATGGCGGAGGCCCA
CGCGCGCATCCATCTGCGGGACTATGTGATCGAAGACGACGTCAACATGGCCATCCGCGTGATGCTGGAGAGCTT
CATAGACACACAGAAGTTCAGCGTCATCGCAGCATGCGCAAGACTTTTGCCCGCTACCTTTCATTCCGGCGTGAC
AACAATGAGCTGTTGCTCTTCATACTGAAGCAGTTAGTGGCAGAGCAGGTGACATATCAGCGCAACCGCTTTGGG
GCCCAGCAGGACACTATTGAGGTCCCTGAGAAGGACTTGGTGGATAAGGCTCGTCAGATCAACATCCACAACCTC
TCTGCATTTTATGACAGTGAGCTCTTCAGGATGAACAAGTTCAGCCACGACCTGAAAAGGAAAATGATCCTGCAG
CAGTTC**TGA**GGCCCTATGCCATCCATAAGGATTCCTTGGGATTCTGGTTTGGGGTGGTCAGTGCCCTCTGTGCTT
TATGGACACAAAACCAGAGCACTTGATGAACTCGGGGTACTAGGGTCAGGGCTTATAGCAGGATGTCTGGCTGCA
CCTGGCATGACTGTTTGTTTCTCCAAGCCTGCTTTGTGCTTCTCACCTTTGGGTGGGATGCCTTGCCAGTGTGTC
TTACTTGGTTGCTGAACATCTTGCCACCTCCGAGTGCTTTGTCTCCACTCAGTACCTTGGATCAGAGCTGCTGAG
TTCAGGATGCCTGCGTGTGGTTTAGGTGTTAGCCTTCTTACATGGATGTCAGGAGAGCTGCTGCCCTCTTGGCGT
GAGTTGCGTATTCAGGCTGCTTTTGCTCGCTTTGGCCAGAGAGCTGGTTGAAGATGTTTGTAATCGTTTTCAGTC
TCCTGCAGGTTTCTGTGCCCCTGTGGTGGAAGAGGCACGACAGTGCCAGCGCAGCGTTCTGGGCTCCTCAGTCGC
AGGGGTGGGATGTGAGTCATGCGGATTATCCACTCGCCACAGTTATCAGCTGCCATTGCTCCCTGTCTGTTTCCC
CACTCTCTTATTTGTGCATTCGGTTTGGTTTCTGTAGTTTTAATTTTTAATAAAGTTGAATAAAATATAAAAAAA
AAAA

FIGURE 185

MASSPAQRRRGNDPLTSSPGRSSRRTDALTSSPGRDLPPFEDESEGLLGTEGPLEEEEDGEELIGDGMERDYRAI
PELDAYEAEGLALDDEDVEELTASRREAADGPCGTVTGSWPGLGACAVGSCMTAMRRTRSALPASAASGAGTEDG
EEDEQMIESIENLEDLKGHSVREWVSMAGPRLEIHHRFKNFLRTHVDSHGHNVFKERISDMCKENRESLVVNYED
LAAREHVLAYFLPEAPAELLQIFDEAALEVVLAMYPKYDRITNHIHVRISHLPLVEELRSLRQLHLNQLIRTSGV
VTSCTGVLPQLSMVKYNCNKCNFVLGPFCQSQNQEVKPGSCPECQSAGPFEVNMEETIYQNYQRIRIQESPGKVA
ARRLPRSKDAILLADLVDSCNAGDEIELTGIYHNNYDGSLNTANGFPVFATVILANHVAKKDNKVAVGELTDEDV
KMITSLSKDQQIGEKIFASIAPSIYGHEDIKRGPALALFGGEPKNPGGKHKVRGDINVLLCGDPGTAKSQFLKYI
EKVSSRAIFTTGQGASAVAVTAYVQRHPVSREWTLEAGALVLADRGVCLIDEFDKMNDQDRTSIHEAMEQQSISI
SKAGIVTSLQARCTVIAAANPIGGRYDPSLTFSENVDLTEPIISRFDILCVVRDTVDPVQDEMLARFVVGSHVRH
HPSNKEEEGLANGSAAEPAMPNTYGVEPLPQEVLKKYIIYAKERVHPKLNQMDQDKVAKMYSDLRKESMATGSIP
ITVRHIESMSHGGGPRAHPSAGLCDRRRRQHGHPRDAGELHRHTEVQRHRSMRKTFARYLSFRRDNNELLLFILK
QLVAEQVTYQRNRFGAQQDTIEVPEKDLVDKARQINIHNLSAFYDSELFRMNKFSHDLKRKMILQQF

FIGURE 186A

TGAATTCGTGAGAGACTTGAGGGAGGCGCTGCGACTGACAAGCGGCTCTGCCCGGGACCTTCTCGCTTTCATCTA
GCGCTGCACTCAATGGAGGGGCGGGCACCGCAGTGCTTAATGCTGTCTTAACTAGTGTAGGAAAACGGCTCAACC
CACCGCTGCCGAA**ATG**AAGTATAAGAATCTTATGGCAAGGGCCTTATATGACAATGTCCCAGAGTGTGCCGAGGA
ACTGGCCTTTCGCAAGGGAGACATCCTGACCGTCATAGAGCAGAACACAGGGGGACTGGAAGGATGGTGGCTGTG
CTCGTTACACGGTCGGCAAGGCATTGTCCCAGGCAACCGGGTGAAGCTTCTGATTGGTCCCATGCAGGAGACTGC
CTCCAGTCACGAGCAGCCTGCCTCTGGACTGATGCAGCAGACCTTTGGCCAACAGAAGCTCTATCAAGTGCCAAA
CCCACAGGCTGCTCCCCGAGACACCATCTACCAAGTGCCACCTTCCTACCAAAATCAGGGAATTTACCAAGTCCC
CACTGGCCACGGCACCCAAGAACAAGAGGTATATCAGGTGCCACCATCAGTGCAGAGAAGCATTGGGGGAACCAG
TGGGCCCCACGTGGGTAAAAAGGTGATAACCCCCGTGAGGACAGGCCATGGCTACGTATACGAGTACCCATCCAG
ATACCAAAAGGATGTCTATGATATCCCTCCTTCTCATACCACTCAAGGGGTATACGACATCCCTCCCTCATCAGC
AAAAGGCCCTGTGTTTTCAGTTCCAGTGGGAGAGATAAAACCTCAAGGGGTGTATGACATCCCGCCTACAAAAGG
GGTATATGCCATTCCGCCCTCTGCTTGCCGGGATGAAGCAGGGCTTAGGGAAAAAGACTATGACTTCCCCCCTCC
CATGAGACAAGCTGGAAGGCCGGACCTCAGACCGGAGGGGGTTTATGACATTCCTCCAACCTGCACCAAGCCAGC
AGGGAAGGACCTTCATGTAAAATACAACTGTGACATTCCAGGAGCTGCAGAACCGGTGGCTCGAAGGCACCAGAG
CCTGTCCCCGAATCACCCACCCCCGCAACTCGGACAGTCAGTGGGCTCTCAGAACGACGCATATGATGTCCCCCG
AGGCGTTCAGTTTCTTGAGCCACCAGCAGAAACCAGTGAGAAAGCAAACCCCCAGGAAAGGGATGGTGTTTATGA
TGTCCCTCTGCATAACCCGCCAGATGCTAAAGGCTCTCGGGACTTGGTGGATGGGATCAACCGATTGTCTTTCTC
CAGTACAGGCAGCACCCGGAGTAACATGTCCACGTCTTCCACCTCCTCCAAGGAGTCCTCACTGTCAGCCTCCCC
AGCTCAGGACAAAAGGCTCTTCCTGGATCCAGACACAGCTATTGAGAGACTTCAGCGGCTCCAGCAGGCCCTTGA
GATGGGTGTCTCCAGCCTAATGGCACTGGTCACTACCGACTGGCGGTGTTACGGATATATGGAAAGACACATCAA
TGAAATACGCACAGCAGTGGACAAGGTGGAGCTGTTCCTGAAGGAGTACCTCCACTTTGTCAAGGGAGCTGTTGC
AAATGCTGCCTGCCTCCCGGAACTCATCCTCCACAACAAGATGAAGCGGGAGCTGCAACGAGTCGAAGACTCCCA
CCAGATCCTGAGTCAAACCAGCCATGACTTAAATGAGTGCAGCTGGTCCCTGAATATCTTGGCCATCAACAAGCC
CCAGAACAAGTGTGACGATCTGGACCGGTTTGTGATGGTGGCAAAGACGGTGCCCGATGACGCCAAGCAGCTCAC
CACAACCATCAACACCAACGCAGAGGCCCTCTTCAGACCCGGCCCTGGCAGCTTGCATCTGAAGAATGGGCCGGA
GAGCATCATGAACTCAACGGAGTACCCACACGGTGGCTCCCAGGGACAGCTGCTGCATCCTGGTGACCACAAGGC
CCAGGCCCACAACAAGGCACTGCCCCCAGGCCTGAGCAAGGAGCAGGCCCCTGACTGTAGCAGCAGTGATGGTTC
TGAGAGGAGCTGGATGGATGACTACGATTACGTCCACCTACAGGGTAAGGAGGAGTTTGAGAGGCAACAGAAAGA
GCTATTGGAAAAAGAGAATATCATGAAACAGAACAAGATGCAGCTGGAACATCATCAGCTGAGCCAGTTCCAGCT
GTTGGAACAAGAGATTACAAAGCCCGTGGAGAATGACATCTCGAAGTGGAAGCCCTCTCAGAGCCTACCCACCAC
AAACAGTGGCGTGAGTGCTCAGGATCGGCAGTTGCTGTGCTTCTACTATGACCAATGTGAGACCCATTTCATTTC
CCTTCTCAACGCCATTGACGCACTCTTCAGTTGTGTCAGCTCAGCCCAGCCCCCGCGAATCTTCGTGGCACACAG
CAAGTTTGTCATCCTCAGTGCACACAAACTGGTGTTCATTGGAGACACGCTGACACGGCAGGTGACTGCCCAGGA
CATTCGCAACAAAGTCATGAACTCCAGCAACCAGCTCTGCGAGCAGCTCAAGACTATAGTCATGGCAACCAAGAT
GGCCGCCCTCCATTACCCCAGCACCACGGCCCTGCAGGAAATGGTGCACCAAGTGACAGACCTTTCTAGAAATGC
CCAGCTGTTCAAGCGCTCTTTGCTGGAGATGGCAACGTTC**TGA**GAAGAAAAAAAGAGGAAGGGGACTGCGTTAA
CGGTTACTAAGGAAAACTGGAAATACTGTCTGGTTTTTGTAAATGTTATCTATTTTTGTAGATAATTTTATATAA
AAATGAAATATTTTAACATTTTATGGGTCAGACAACTTTCAGAAATTCAGGGAGCTGGAGAGGGAAATCTTTTTT
TCCCCCCTGAGTGTTCTTATGTATACACAGAAGTATCTGAGACATAAACTGTACAGAAAACTTGTCCACGTCCTT
TTGTATGCCCATGTATTCATGTTTTTGTTTGTAGATGTTTGTCTGATGCATTTCATTAAAAAAAAAAACCATGAAT
TACGAAGCACCTTAGTAAGCACCTTCTAATGCTGCATTTTTTTTGTTGTTGTTAAAAACATCCAGCTGGTTATAA
TATTGTTCTCCACGTCCTTGTGATGATTCTGAGCCTGGCACTGGGAATCTGGGAAGCATAGTTTATTTGCAAGTG
TTCACCTTCCAAATCATGAGGCATAGCATGACTTATTCTTGTTTTGAAAACTCTTTTCAAAACTGACCATCTTAA
ACACATGATGGCCAAGTGCCACAAAGCCCTCTTGCGGAGACATTTACGAATATATATGTGGATCCAAGTCTCGAT
AGTTAGGCGTTGGAGGGAAGAGAGACCAGAGAGTTTAGAGGCCAGGACCACAGTTAGGATTGGGTTGTTTCAATA
CTGAGAGACAGCTACAATAAAAGGAGAGCAATTGCCTCCCTGGGGCTGTTCAATCTTCTGCATTTGTGAGTGGTT
CAGTCATGAGGTTTTCCAAAAGATGTTTTTAGAGTTGTAAAAACCATATTTGCAGCAAAGATTTACAAAGGCGTA
TCAGACTATGATTGTTCACCAAAATAGGGGAATGGTTTGATCCGCCAGTTGCAAGTAGAGGCCTTTCTGACTCTT

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FIGURE 186B

AATATTCACTTTGGTGCTACTACCCCCATTACCTGAGGAACTGGCCAGGTCCTTGATCATGGAACTATAGAGCTA
CCAGACATATCCTGCTCTCTAAGGGAATTTATTGCTATCTTGCACCTTCTTTAAAACTCAAAAAACATATGCAGA
CCTGACACTCAAGAGTGGCTAGCTACACAGAGTCCATCTAATTTTTGCAACTTCCCCCCCCGAATTC

FIGURE 187

MKYKNLMARALYDNVPECAEELAFRKGDILTVIEQNTGGLEGWWLCSLHGRQGIVPGNRVKLLIGPMQETASSHE
QPASGLMQQTFGQQKLYQVPNPQAAPRDTIYQVPPSYQNQGIYQVPTGHGTQEQEVYQVPPSVQRSIGGTSGPHV
GKKVITPVRTGHGYVYEYPSRYQKDVYDIPPSHTTQGVYDIPPSSAKGPVFSVPVGEIKPQGVYDIPPTKGVYAI
PPSACRDEAGLREKDYDFPPPMRQAGRPDLRPEGVYDIPPTCTKPAGKDLHVKYNCDIPGAAEPVARRHQSLSPN
HPPPQLGQSVGSQNDAYDVPRGVQFLEPPAETSEKANPQERDGVYDVPLHNPPDAKGSRDLVDGINRLSFSSTGS
TRSNMSTSSTSSKESSLSASPAQDKRLFLDPDTAIERLQRLQQALEMGVSSLMALVTTDWRCYGYMERHINEIRT
AVDKVELFLKEYLHFVKGAVANAACLPELILHNKMKRELQRVEDSHQILSQTSHDLNECSWSLNILAINKPQNKC
DDLDRFVMVAKTVPDDAKQLTTTINTNAEALFRPGPGSLHLKNGPESIMNSTEYPHGGSQGQLLHPGDHKAQAHN
KALPPGLSKEQAPDCSSSDGSERSWMDDYDYVHLQGKEEFERQQKELLEKENIMKQNKMQLEHHQLSQFQLLEQE
ITKPVENDISKWKPSQSLPTTNSGVSAQDRQLLCFYYDQCETHFISLLNAIDALFSCVSSAQPPRIFVAHSKFVI
LSAHKLVFIGDTLTRQVTAQDIRNKVMNSSNQLCEQLKTIVMATKMAALHYPSTTALQEMVHQVTDLSRNAQLFK
RSLLEMATF

FIGURE 188

CGCAGGGACCGTGCTCCGCCGTCTCCGCCGCATCTTCCACCCTCGCCGCCGCCGCAGCTCCCCGCGCTCGTGCCA
CCGCCGCCGCGTCCACCCTCAGCGCCACCGCC**ATG**CGGGAGATCGTGCACCTGCAGGCCGGCCAGTGCGGCAACC
AGATCGGGGCCAAGTTTTGGGAGGTTATCAGTGACGAACATGGCATCGACCCCACAGGCACATACCATGGGGACA
GTGACCTGCAACTGGAGAGGATCAACGTGTACTACAACGAGGCCACAGGAGGAAATTATGTCCCCAGAGCGGTGC
TGGTGGACCTGGAACCCGGCACCATGGACTCTGTCCGTTCTGGCCCCTTCGGTCAGATCTTTCGGCCGGACAACT
TCGTGTTTGGCCAATCCGGAGCCGGCAACAACTGGGCAAAGGGGCACTACACGGAGGGCGCAGAGCTGGTGGACG
CTGTCCTGGACGTAGTCCGGAAGGAGGCCGAGAGCTGCGACTGCCTTCAGGGCTTCCAGCTGACCCACTCGCTGG
GGGGTGGCACGGGGTCCGGAATGGGCACGCTGCTCATCAGTAAGATCCGCGAGGAGTTCCCAGACCGCATCATGA
ACACCTTCAGCGTGGTGCCCTCGCCCAAAGTGTCAGACACGGTGGTGGAGCCCTACAACGCCACGCTGTCTGTGC
ACCAGCTGGTGGAGAATACGGATGAGACCTACTGCATCGACAACGAGGCACTCTACGACATCTGTTTCCGCACCC
TCAAGCTGACCACCCCCACCTACGGGGACCTCAACCACCTGGTGTCGGCCACCATGAGCGGGGTCACCACCTGCC
TGCGCTTCCCGGGCCAGCTGAACGCCGACCTGCGCAAGCTGGCCGTCAACATGGTTCCCTTTCCTCGCCTGCACT
TCTTCATGCCCGGCTTCGCACCCCTGACCAGCCGGGGCAGCCAGCAGTACCGGGCCCTGACGGTGCCCGAGCTCA
CCCAGCAGATGTTCGATGCCAAGAACATGATGGCGGCGTGCGACCCGCGCCACGGCCGCTACCTGACCGTGGCCG
CCGTGTTCCGGGGCCGCATGTCCATGAAGGAGGTGGACGAGCAGATGCTGAGCGTGCAGAGCAAGAACAGCAGCT
ACTTCGTGGAGTGGATCCCCAACAACGTGAAGACGGCCGTGTGCGACATCCCGCCCCGCGGCCTGAAGATGGCCG
CGACCTTCATCGGCAACAGCACGGCCATCCAGGAGCTGTTCAAGCGCATCTCCGAGCAGTTCACGGCCATGTTCC
GGCGCAAGGCCTTCTTGCACTGGTACACGGGCGAGGGCATGGACGAGATGGAGTTCACCGAGGCCGAGAGCAACA
TGAATGACCTGGTATCTGAGTACCAGCAGTACCAGGACGCCACGGCCGAGGAGGGCGAGTTCGAGGAGGAGGCGG
AGGAGGAGGTGGCC**TAG**GCTGCTCCCATCGCTTCCCACCTGTCCCCTCGAGGCTTCTGACCTTTGATCCGCTAGG
CCCCCCATCTCTGAACCCTAGAGCCCCGCTTTCCCTCCAAGGCTGACTCCCCGCTGACCCTAACAATACCTTTGG
AGCTCGCTTTACCTCTGGCTACTTCATCTCCGACCCTGGCTCCCCTTTGAGCCCTAATTTATCTTTAACCCCCTT
GAGCTCTTCCAACCTTGACATTCCCAGGAGGAGCCCCGCTTCACCCCTTCTGACTCTGGAAACCGCACCTTTAAC
TTTGCAGACCTTCCTTCACCCCTGACTTCTGCTTCACCTTTGACCTCTGCCCCCCATGAATCCCATTTTACCTCT
AGACCTATAAGTTCTGGTTTATGTTTGACCCCTCCCTCTGAGCTGCACTTCACCGCTGACCTTGCCTCACCTTTA
ACCCCCCACCTGAGCCCCAGCTCCTACCTCTGACCCCAACTTCTCTTTGATCTCTGAATCCCCTCTGACTCCAAC
TTCTCTTTCACCCTCTATGAGTCCCATTTTACTTCTACACCTGCAAGTCCTGGTTTATATTGGACCCCTCCCTCC
GAGCTGCAGTTCACCTTTGACCTTGCCTCACCTTTCACCCCCCACCCCCCACAGCGTCAGCTCCTACCTCTGACC
CCAGCTTCTCTCTGATTCCCACAGGCCCCATGCATCCTCCCTGCCTCACTCCCCTCAGCCCCTGCCGACCTTAGC
TTATCTGGGAGAGAAACAAGGCCTGGTGCCTGTGAGGAAGAGAGGTCACCCCTACCCTCCCTCCCCGCTTCCCTG
CCTCACCCTCAATAAATAAATTAATTGTTGTCATGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 189

MREIVHLQAGQCGNQIGAKFWEVISDEHGIDPTGTYHGDSDLQLERINVYYNEATGGNYVPRAVLVDLEPGTMDS
VRSGPFGQIFRPDNFVFGQSGAGNNWAKGHYTEGAELVDAVLDVVRKEAESCDCLQGFQLTHSLGGGTGSGMGTL
LISKIREEFPDRIMNTFSVVPSPKVSDTVVEPYNATLSVHQLVENTDETYCIDNEALYDICFRTLKLTTPTYGDL
NHLVSATMSGVTTCLRFPGQLNADLRKLAVNMVPFPRLHFFMPGFAPLTSRGSQQYRALTVPELTQQMFDAKNMM
AACDPRHGRYLTVAAVFRGRMSMKEVDEQMLSVQSKNSSYFVEWIPNNVKTAVCDIPPRGLKMAATFIGNSTAIQ
ELFKRISEQFTAMFRRKAFLHWYTGEGMDEMEFTEAESNMNDLVSEYQQYQDATAEEGEFEEEAEEEVA

FIGURE 190

GGCACGAGGGAGAACTAGTCTCGATTTTTTTTTTTTTTTTTTTCTTTGTTTTGTTTTTCCTGTATAAAAAAGGAC
CCCAAATATAAAGGTAGGGAAAGGGACAAGAGGGAACATACCCCTTAGTGTAGAGAAATGGGAAGGAGAAGGAGA
AGCCTCAAAAGGAGAGGTGGGAGGGGAATGTCATTAAGGCAGCAAAGTAATCTCTGTAGAAAGATGGAGGAGGAC
CCTCCATAGCCTCAGAGATAAAGGCAAAGATTGCCCTCTCAGTGTCCAGAAGGGAAATGGCAGCTTTTCTTCCTT
CCATGGCAGCCACTCCATTGCTCACTCCGGATTACCTTCATCCTTATGTAGATAAGAGTGCTGCAGAGCTCGAAA
GGCAGAGATTCGCTTGTGTGGGTTAAAAGTCAGCATTTCCAGCAGCAGCTGTGCTCCCGACTCCTCCATCTCAGG
TACCACCGACTGCACTGGGCGGGGCCCTCTGGGGGGAAAGGCTCCACGGGGCAGGGATACATCTCGAGGCCAGTC
ATCCTCTGGAGGCAGCCCAATCAGGTCAAAGATTTTGCCCAACTGGTCGGCTTCAGAGTTTCCACAGAAGAGAGG
CTTTCGACGAAACATCTCTGCAAAGATACAGCCAACACTCCAC**ATG**TCCACAGGTGTTGCATATGTGGACTGCAG
AAGAACTTCGGGAGCTCGGTACCAGAGTGTAACAACCACGGGTGTAAGTGCCATCTGG**TAG**CTGTAGATTCTGGC
CAGGCCAAAGTCAGCCAGCTTGACTGTTCCACCACTTGTCACCAGAATGTTCTCTGGCTTCAGATCTCGGTGAAC
GATGCAATTGGCATGAAGGAAATCTAGGCCTCTTAGAAACTGGCGCATCAGATCCTTGATCGTTTCGGCTGGCAA
GCCTGGTGGGGGTGCCTTGTCCAGATATGTCCTTAGGTCCTGGTCTACATGCTCAAACACCAGGGTTACCTTGAT
CTCCCGGTCAGTTCGGGATGTGGCACAGACGTCCATCAGCCGGACAACATTGGGATGCTCAAAAGCCTCCAGTCG
CCTCAGTAAAGCCACCTCACGAACTGTGCTGATGGGAAGGCCTCCTCCACCTCCTCCTCCATTGGGGACTCTCAC
ACTCTTGAGGGCCACAAAGTGGCCACTGTGGGGATCACGGGCCTTGTACACTGTCCCATAGGCACCGACACCAAT
TTCAGCCACTGGCTCATATCGAGAGGTAGCCATTCTCAGATCAAGGGAGACCCTCACGCCAGCCCGGGGTGCTGT
GGGGGCGGCCCGTTATCGGGGCCCCGGAGCCGGTTCCTACGGCCCCATACACCCGAGCTCGGTCCGGAGCAG

FIGURE 191

MSTGVAYVDCRRTSGARYQSVTTTGVSAIW

FIGURE 192

AGCTGAGGTGTGAGCAGCTGCCGAAGTCAGTTCCTTGTGGAGCCGGAGCTGGGCGCGGATTCGCCGAGGCACCGA
GGCACTCAGAGGAGGTGAGAGAGCGGCGGCAGACAACAGGGGACCCCGGGCCGGCGGCCCAGAGCCGAGCCAAGC
GTGCCCGCGTGTGTCCCTGCGTGTCCGCGAGGATGCGTGTTCGCGGGTGTGTGCTGCGTTCACAGGTGTTTCTGC
GGCAGGCGCC**ATG**TCAGAACCGGCTGGGGATGTCCGTCAGAACCCATGCGGCAGCAAGGCCTGCCGCCGCCTCTT
CGGCCCAGTGGACAGCGAGCAGCTGAGCCGCGACTGTGATGCGCTAATGGCGGGCTGCATCCAGGAGGCCCGTGA
GCGATGGAACTTCGACTTTGTCACCGAGACACCACTGGAGGGTGACTTCGCCTGGGAGCGTGTGCGGGGCCTTGG
CCTGCCCAAGCTCTACCTTCCCACGGGGCCCCGGCGAGGCCGGGATGAGTTGGGAGGAGGCAGGCGGCCTGGCAC
CTCACCTGCTCTGCTGCAGGGGACAGCAGAGGAAGACCATGTGGACCTGTCACTGTCTTGTACCCTTGTGCCTCG
CTCAGGGGAGCAGGCTGAAGGGTCCCCAGGTGGACCTGGAGACTCTCAGGGTCGAAAACGGCGGCAGACCAGCAT
GACAGATTTCTACCACTCCAAACGCCGGCTGATCTTCTCCAAGAGGAAGCCC**TAA**TCCGCCCACAGGAAGCCTGC
AGTCCTGGAAGCGCGAGGGCCTCAAAGGCCCGCTCTACATCTTCTGCCTTAGTCTCAGTTTGTGTGTCTTAATTA
TTATTTGTGTTTTAATTTAAACACCTCCTCATGTACATACCCTGGCCGCCCCCTGCCCCCCAGCCTCTGGCATTA
GAATTATTTAAACAAAAACTAGGCGGTTGAATGAGAGGTTCCTAAGAGTGCTGGGCATTTTTATTTTATGAAATA
CTATTTAAAGCCTCCTCATCCCGTGTTCTCCTTTTCCTCTCTCCCGGAGGTTGGGTGGGCCGGCTTCATGCCAGC
TACTTCCTCCTCCCCACTTGTCCGCTGGGTGGTACCCTCTGGAGGGGTGTGGCTCCTTCCCATCGCTGTCACAGG
CGGTTATGAAATTCACCCCCTTTCCTGGACACTCAGACCTGAATTCTTTTTCATTTGAGAAGTAAACAGATGGCA
CTTTGAAGGGGCCTCACCGAGTGGGGGCATCATCAAAAACTTTGGAGTCCCCTCACCTCCTCTAAGGTTGGGCAG
GGTGACCCTGAAGTGAGCACAGCCTAGGGCTGAGCTGGGGACCTGGTACCCTCCTGGCTCTTGATACCCCCCTCT
GTCTTGTGAAGGCAGGGGGAAGGTGGGGTCCTGGAGCAGACCACCCCGCCTGCCCTCATGGCCCCTCTGACCTGC
ACTGGGGAGCCCGTCTCAGTGTTGAGCCTTTTCCCTCTTTGGCTCCCCTGTACCTTTTGAGGAGCCCCAGCTACC
CTTCTTCTCCAGCTGGGCTCTGCAATTCCCCTCTGCTGCTGTCCCTCCCCCTTGTCCTTTCCCTTCAGTACCCTC
TCAGCTCCAGGTGGCTCTGAGGTGCCTGTCCCACCCCCACCCCCAGCTCAATGGACTGGAAGGGGAAGGGACACA
CAAGAAGAAGGGCACCCTAGTTCTACCTCAGGCAGCTCAAGCAGCGACCGCCCCCTCCTCTAGCTGTGGGGGTGA
GGGTCCCATGTGGTGGCACAGGCCCCCTTGAGTGGGGTTATCTCTGTGTTAGGGGTATATGATGGGGGAGTAGAT
CTTTCTAGGAGGGAGACACTGGCCCCTCAAATCGTCCAGCGACCTTCCTCATCCACCCCATCCCTCCCCAGTTCA
TTGCACTTTGATTAGCAGCGGAACAAGGAGTCAGACATTTTAAGATGGTGGCAGTAGAGGCTATGGACAGGGCAT
GCCACGTGGGCTCATATGGGGCTGGGAGTAGTTGTCTTTCCTGGCACTAACGTTGAGCCCCTGGAGGCACTGAAG
TGCTTAGTGTACTTGGAGTATTGGGGTCTGACCCCAAACACCTTCCAGCTCCTGTAACATACTGGCCTGGACTGT
TTTCTCTCGGCTCCCCATGTGTCCTGGTTCCCGTTTCTCCACCTAGACTGTAAACCTCTCGAGGGCAGGGACCAC
ACCCTGTACTGTTCTGTGTCTTTCACAGCTCCTCCCACAATGCTGAATATACAGCAGGTGCTCAATAAATGATTC
TTAGTGACTTTAAAAAAAAAAAAAAAAAAAA

FIGURE 193

MSEPAGDVRQNPCGSKACRRLFGPVDSEQLSRDCDALMAGCIQEARERWNFDFVTETPLEGDFAWERVRGLGLPK
LYLPTGPRRGRDELGGGRRPGTSPALLQGTAEEDHVDLSLSCTLVPRSGEQAEGSPGGPGDSQGRKRRQTSMTDF
YHSKRRLIFSKRKP

FIGURE 194

GTGGAACCTCGATATTGGTGGTGTCCATCGTGGGCAGCGGACTAATAAAGGCC**ATG**GCGCCAGCAGAAATCCTGA
ACGGGAAGGAGATCTCCGCGCAAATAAGGGCGAGACTGAAAAATCAAGTCACTCAGTTGAAGGAGCAAGTACCTG
GTTTCACACCACGCCTGGCAATATTACAGGTTGGCAACAGAGATGATTCCAATCTTTATATAAATGTGAAGCTGA
AGGCTGCTGAAGAGATTGGGATCAAAGCCACTCACATTAAGTTACCAAGAACAACCACAGAATCTGAGGTGATGA
AGTACATTACATCTTTGAATGAAGACTCTACTGTACATGGGTTCTTAGTGCAGCTACCTTTAGATTCAGAGAATT
CCATTAACACTGAAGAAGTGATCAATGCTATTGCACCCGAGAAGGATGTGGATGGATTGACTAGCATCAATGCTG
GGAGACTTGCTAGAGGTGACCTCAATGACTGTTTCATTCCTTGTACGCCTAAGGGATGCTTGGAACTCATCAAAG
AGACAGGGGTGCCGATTGCCGGAAGGCATGCTGTGGTGGTTGGGCGCAGTAAAATAGTTGGGGCCCCGATGCATG
ACTTGCTTCTGTGGAACAATGCCACAGTGACCACCTGCCACTCCAAGACTGCCCATCTGGATGAGGAGGTAAATA
AAGGTGACATCCTGGTGGTTGCAACTGGTCAGCCTGAAATGGTTAAAGGGGGAGTGGATCAAACCTGGGGCAATAG
TCATCGACTGTGGAATCAATTATGTCCCAGATGATAAAAAACCAAATGGGAGAAAAGTTGTGGGTGATGTGGCAT
ACGACGAGGCCAAAGAGAGGGCGAGCTTCATCACTCCTGTTCCTGGCGGCGTAGGGCCCATGACAGTTGCAATGC
TCATGCAGAGCACAGTAGAGAGTGCCAAGCGTTTCCTGGAGAAATTTAAGCCAGGAAAGTGGATGATTCAGTATA
ACAACCTTAACCTCAAGACACCTGTTCCAAGTGACATTGATATATCACGATCTTGTAAACCGAAGCCCATTGGTA
AGCTGGCTCGAGAAATTGGTCTGCTGTCTGAAGAGGTAGAATTATATGGTGAAACAAAGGCCAAAGTTCTGCTGT
CAGCACTAGAACGCCTGAAGCACCGGCCTGATGGGAAATACGTGGTGGTGACTGGAATAACTCCAACACCCCTGG
GAGAAGGGAAAAGCACAACTACAATCGGGCTAGTGCAAGCCCTTGGTGCCCATCTCTACCAGAATGTCTTTGCGT
GTGTGCGACAGCCTTCTCAGGGCCCCACCTTTGGAATAAAAGGTGGCGCTGCAGGAGGCGGCTACTCCCAGGTCA
TTCCTATGGAAGAGTTTAATCTCCACCTCACAGGTGACATCCATGCCATCACTGCAGCTAATAACCTCGTTGCTG
CGGCCATTGATGCTCGGATATTTCATGAACTGACCCAGACAGACAAGGCTCTCTTTAATCGTTTGGTGCCATCAG
TAAATGGAGTGAGAAGGTTCTCTGACATCCAAATCCGAAGGTTAAAGAGACTAGGCATTGAAAAGACTGACCCTA
CCACACTGACAGATGAAGAGATAAACAGATTTGCAAGATTGGACATTGATCCAGAAACCATAACTTGGCAAAGAG
TGTTGGATACCAATGATAGATTCCTGAGGAAGATCACGATTGGACAGGCTCCAACGGAGAAGGGTCACACACGGA
CGGCCCAGTTTGATATCTCTGTGGCCAGTGAAATTATGGCTGTCCTGGCTCTCACCACTTCTCTAGAAGACATGA
GAGAGAGACTGGGCAAAATGGTGGTGGCATCCAGTAAGAAAGGAGAGCCCGTCAGTGCCGAAGATCTGGGGGTGA
GTGGTGCACTGACAGTGCTTATGAAGGACGCAATCAAGCCCAATCTCATGCAGACACTGGAGGGCACTCCAGTGT
TTGTCCATGCTGGCCCGTTTGCCAACATCGCACATGGCAATTCCTCCATCATTGCAGACCAGATCGCACTCAAGC
TTGTTGGCCCAGAAGGGTTTGTAGTGACGGAAGCAGGATTTGGAGCAGACATTGGAATGGAAAAGTTTTTTAACA
TCAAATGCCGGTATTCCGGCCTCTGCCCCCACGTGGTGGTGCTTGTTGCCACTGTCAGGGCTCTCAAGATGCACG
GGGGCGGCCCCACGGTCACTGCTGGACTGCCTCTTCCCAAGGCTTACATACAGGAGAACCTGGAGCTGGTTGAAA
AAGGCTTCAGTAACTTGAAGAAACAAATTGAAAATGCCAGAATGTTTGGAATTCCAGTAGTAGTGGCCGTGAATG
CATTCAAGACGGATACAGAGTCTGAGCTGGACCTCATCAGCCGCCTTTCCAGAGAACATGGGGCTTTTGATGCCG
TGAAGTGCACTCACTGGGCAGAAGGGGGCAAGGGTGCCTTAGCCCTGGCTCAGGCCGTCCAGAGAGCAGCACAAG
CACCCAGCAGCTTCCAGCTCCTTTATGACCTCAAGCTCCCAGTTGAGGATAAAATCAGGATCATTGCACAGAAGA
TCTATGGAGCAGATGACATTGAATTACTTCCCGAAGCTCAACACAAAGCTGAAGTCTACACGAAGCAGGGCTTTG
GGAATCTCCCCATCTGCATGGCTAAAACACACTTGTCTTTGTCTCACAACCCAGAGCAAAAAGGTGTCCCTACAG
GCTTCATTCTGCCCATTCGCGACATCCGCGCCAGCGTTGGGGCTGGTTTTCTGTACCCCTTAGTAGGAACGATGA
GCACAATGCCTGGACTCCCCACCCGGCCCTGTTTTATGATATTGATTTGGACCCTGAAACAGAACAGGTGAATG
GATTATTC**TAA**ACAGATCACCATCCATCTTCAAGAAGCTACTTTGAAAGTCTGGCCAGTGTCTATTCAGGCCCAC
TGGGAGTTAGGAAGTATAAGTAAGCCAAGAGAAGTCAGCCCCTGCCCAGAAGATCTGAAACTAATAGTAGGAGTT
TCCCCAGAAGTCATTTTCAGCCTTAATTCTCATCATGTATAAATTAACATAAATCATGCATGTCTGTTTACTTTA
GTGACGTTCCACAGAATAAAAGGAAACAAGTTTGC

FIGURE 195

MAPAEILNGKEISAQIRARLKNQVTQLKEQVPGFTPRLAILQVGNRDDSNLYINVKLKAAEEIGIKATHIKLPRT
TTESEVMKYITSLNEDSTVHGFLVQLPLDSENSINTEEVINAIAPEKDVDGLTSINAGRLARGDLNDCFIPCTPK
GCLELIKETGVPIAGRHAVVVGRSKIVGAPMHDLLLWNNATVTTCHSKTAHLDEEVNKGDILVVATGQPEMVKGE
WIKPGAIVIDCGINYVPDDKKPNGRKVVGDVAYDEAKERASFITPVPGGVGPMTVAMLMQSTVESAKRFLEKFKP
GKWMIQYNNLNLKTPVPSDIDISRSCKPKPIGKLAREIGLLSEEVELYGETKAKVLLSALERLKHRPDGKYVVVT
GITPTPLGEGKSTTTIGLVQALGAHLYQNVFACVRQPSQGPTFGIKGGAAGGGYSQVIPMEEFNLHLTGDIHAIT
AANNLVAAAIDARIFHELTQTDKALFNRLVPSVNGVRRFSDIQIRRLKRLGIEKTDPTTLTDEEINRFARLDIDP
ETITWQRVLDTNDRFLRKITIGQAPTEKGHTRTAQFDISVASEIMAVLALTTSLEDMRERLGKMVVASSKKGEPV
SAEDLGVSGALTVLMKDAIKPNLMQTLEGTPVFVHAGPFANIAHGNSSIIADQIALKLVGPEGFVVTEAGFGADI
GMEKFFNIKCRYSGLCPHVVVLVATVRALKMHGGGPTVTAGLPLPKAYIQENLELVEKGFSNLKKQIENARMFGI
PVVVAVNAFKTDTESELDLISRLSREHGAFDAVKCTHWAEGGKGALALAQAVQRAAQAPSSFQLLYDLKLPVEDK
IRIIAQKIYGADDIELLPEAQHKAEVYTKQGFGNLPICMAKTHLSLSHNPEQKGVPTGFILPIRDIRASVGAGFL
YPLVGTMSTMPGLPTRPCFYDIDLDPETEQVNGLF

FIGURE 196

CGCGATTCTCAGGGATTGATCCGCCTCTTCAGGTAAGTTATCTTCCGGCCCCGTACCACTGTGCCACAGGCGCAG
CCCGCTTCCTCAGGTGCCCTATCCCGCGCAGAAGACCACGGCTTCACAGAGTGTTATTTAAGGGCGTGGCCAGCG
GAACATCCCGCCCCATTCTGTGACGCACGGGGTGGCGCGCGTGGGACCCGAGGGGTGGGGCTGGGTTTAGTAGGA
GACCTGGGGCAAGGCCCCCTGTGGACGACCATCTGCCAGCTTCTCTCGTTCCGTCGATTGGGAGGAGCGGTGGCG
ACCTCGGCCTTCAGTGTTTCCGACGGAGTGA**ATG**GCGGCGGCGGCTGGGATGCTGCTGCTGGGCTTGCTGCAGGC
GGGTGGGTCGGTGCTGGGCCAGGCGATGGAGAAGGTGACAGGCGGCAACCTCTTGTCCATGCTGCTGATCGCCTG
CGCCTTCACCCTCAGCCTGGTCTACCTGATCCGTCTGGCCGCCGGCCACCTGGTCCAGCTGCCCGCAGGGGTGAA
AAGTCCTCCATACATTTTCTCCCCAATTCCATTCCTTGGGCATGCCATAGCATTTGGGAAAAGTCCAATTGAATT
TCTAGAAAATGCATATGAGAAGTATGGACCTGTATTTAGTTTTACCATGGTAGGCAAGACATTTACTTACCTTCT
GGGGAGTGATGCTGCTGCACTGCTTTTTAATAGTAAAAATGAAGACCTGAATGCAGAAGATGTCTACAGTCGCCT
GACAACACCTGTGTTTGGGAAGGGAGTTGCATACGATGTGCCTAATCCAGTTTTCTTGGAGCAGAAGAAAATGTT
AAAAAGTGGCCTTAACATAGCCCACTTTAAACAGCATGTTTCTATAATTGAAAAAGAAACAAAGGAATACTTTGA
GAGTTGGGGAGAAAGTGGAGAAAAAAATGTGTTTGAAGCTCTTTCTGAGCTCATAATTTTAACAGCTAGCCATTG
TTTGCATGGAAAGGAAATCAGAAGTCAACTCAATGAAAAGGTAGCACAGCTGTATGCAGATTTGGATGGAGGTTT
CAGCCATGCAGCCTGGCTCTTACCAGGTTGGCTGCCTTTGCCTAGTTTCAGACGCAGGGACAGAGCTCATCGGGA
AATCAAGGATATTTTCTATAAGGCAATCCAGAAACGCAGACAGTCTCAAGAAAAATTGATGACATTCTCCAAAC
TTTACTAGATGCTACATACAAGGATGGGCGTCCTTTGACTGATGATGAAGTAGCAGGGATGCTTATTGGATTACT
CTTGGCAGGGCAGCATACATCCTCAACTACTAGTGCTTGGATGGGCTTCTTTTTGGCCAGAGACAAAACACTTCA
AAAAAAATGTTATTTAGAACAGAAAACAGTCTGTGGAGAGAATCTGCCTCCTTTAACTTATGACCAGCTCAAGGA
TCTAAATTTACTTGATCGCTGTATAAAAGAAACATTAAGACTTAGACCTCCTATAATGATCATGATGAGAATGGC
CAGAACTCCTCAGACTGTGGCAGGGTATACCATTCCTCCAGGACATCAGGTGTGTGTTTCTCCCACTGTCAATCA
AAGACTTAAAGACTCATGGGTAGAACGCCTGGACTTTAATCCTGATCGCTACTTACAGGATAACCCAGCATCAGG
GGAAAAGTTTGCCTATGTGCCATTTGGAGCTGGGCGTCATCGTTGTATTGGGGAAAATTTTGCCTATGTTCAAAT
TAAGACAATTTGGTCCACTATGCTTCGTTTATATGAATTTGATCTCATTGATGGATACTTTCCCACTGTGAATTA
TACAACTATGATTCACACCCCTGAGAACCCAGTTATCCGTTACAAACGAAGATCAAAA**TGA**AAAAGGTTGCAAGG
AACGAATATATGTGATTATCACTGTAAGCCACAAAGGCATTCGAAGAGAATGAAGTGTACAAAACAACTCTTGTA
GTTTACTGTTTTTTTAAGTGTGTAATTCTAAAAGCCAGTTTATGATTTAGGATTTTGTTAACTGAATGGTTCTAT
CAAATATAATAGCATTTGACACATTTTCTAATAGTTATGATACTTATACATGTGCTTTCAGGAAGTTCCTTGGTG
AAACAATTGTTGAGGGGGGATCTAGGTAATTGGCAGATTCTAAATAATATAATTTCCAGATAGTAATTTTAAGAG
TACTCATCGCTCTTGCCAAATAAGTTCAGGGTATTCAAATCTTGGACTAGTCCTGCAAGGTATAAAGAATAAAAA
TCCCAGTGAGATACTTGGAAACCACAGTTTATTATTATTTATCTGGGCAATTATTGTGTGTGTGAGGATGGAAGG
GTAGGGAATAATCGAACATCTAAAGCCTTGAATAAGAGAATACTAATTGTTTGGTATGATGATACTCAGAAATG
GAGATATTATAGGAAAAAGAAATCCTTTGGAATTTTAACTAAAATCACTGCATATGGGAAATTAAGAGATCCAGG
ACCATATTTGATAAGAGTTCCTAAAAATAATGTAATTATTAATGCTAAAGACTGCTCATGTATCTTGATCTAATT
ACTAAATAAATTACATATTTATTTACCTGATAAATATGTATCTAGTTCTACAAGGTCACATTTATGTGGAAGTCC
AAAGTCAAGTCCTTAGGGGATAATTTTGTTTGGGCTCAGTTGTTCCCTGCTTCCTTTTTTTTTTTTTTTTTTTT
TTGAGATGGAGTCTCGCTCTGTTGCCCAGGCTGGAGTGCAGTGGTGCGATCTCAGCTCACTGCATCCTCTGCCTC
CCGGGTTCAAGCAATTCTCTGCCTCAGCCTCCCAAGTAGTTGGGATTACAGGCACCTGCCACCATGCCTGGCTAA
TTTTTTGTATTTTTAGTAGAGACGGGGGTTTCACTATGTTGGCTAGGCTGGTCTTGAACTCCTGAGCCTCGTGAG
TCCACCCGCCTTGGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCACCGCACCTGGCCTTCCCTGCTTCCTCT
CTAGAATCCAATTAGGGATGTTTGTTACTACTCATATTGATTAAAACAGTTAACAAACTTTTTTCTTTTTAAAAT
GTGAGATCAGTGAACTCTGGTTTTAAGATAATCTGAAACAAGGTCCTTGGGAGTAATAAAATTGGTCACATTCTG
TAAAGCACATTCTGTTTAGGAATCAACTTATCTCAAATTGTAACTCGGGGCCTAACTATATGAGATGGCTGAAAA
AATACCACATCGTCTGTTTTCACTAGGTGATGCCAAAATATTTTGCTTTATGTATATTACAGTTCTTTTTAAAAC
ACTGGAAGACTCATGTTAAACTCTAATTGTGAAGGCAGAATCTCTGCTAATTTTTCAGATTAAAATTCTCTTTGA
AAAAAT

FIGURE 197

MAAAAGMLLLGLLQAGGSVLGQAMEKVTGGNLLSMLLIACAFTLSLVYLIRLAAGHLVQLPAGVKSPPYIFSPIP
FLGHAIAFGKSPIEFLENAYEKYGPVFSFTMVGKTFTYLLGSDAAALLFNSKNEDLNAEDVYSRLTTPVFGKGVA
YDVPNPVFLEQKKMLKSGLNIAHFKQHVSIIEKETKEYFESWGESGEKNVFEALSELIILTASHCLHGKEIRSQL
NEKVAQLYADLDGGFSHAAWLLPGWLPLPSFRRRDRAHREIKDIFYKAIQKRRQSQEKIDDILQTLLDATYKDGR
PLTDDEVAGMLIGLLLAGQHTSSTTSAWMGFFLARDKTLQKKCYLEQKTVCGENLPPLTYDQLKDLNLLDRCIKE
TLRLRPPIMIMMRMARTPQTVAGYTIPPGHQVCVSPTVNQRLKDSWVERLDFNPDRYLQDNPASGEKFAYVPFGA
GRHRCIGENFAYVQIKTIWSTMLRLYEFDLIDGYFPTVNYTTMIHTPENPVIRYKRRSK

FIGURE 198

TCGGGAAGCCATAGGGCGCCTCCCAGCCCGTCTCCCCGCTCCAGTTTAGAACCTAATTCCCAATTCCCGGACCGG
GCCCAGCCCTGGGCTCTTACTGTCCGCTTTTGCTGGGACCTGTTCCACAAATGGGCGTCTTCTGCCTTGGGCCGT
GGGGGTTGGGCCGGAAGCTGCGGACGCCTGGGAAGGGGCCGCTGCAGCTCTTGAGCCGCCTCTGCGGGGACCACT
TGCAGGCCATCCCAGCCAAGAAGGCCCCGGCTGGGCAGGAGGAGCCTGGGACGCCGCCCTCCTCGCCGCTGAGTG
CCGAGCAGTTGGACCGGATCCAGAGGAACAAGGCCGCGGCCCTGCTCAGACTCGCGGCCCGCAACGTGCCCGTGG
GCTTTGGAGAGAGCTGGAAGAAGCACCTCAGCGGGGAGTTCGGGAAACCGTATTTTATCAAGCTAATGGGATTTG
TTGCAGAAGAAAGAAAGCATTACACTGTTTATCCACCCCCACACCAAGTCTTCACCTGGACCCAGATGTGTGACA
TAAAAGATGTGAAGGTTGTCATCCTGGGACAGGATCCATATCATGGACCTAATCAAGCTCACGGGCTCTGCTTTA
GTGTTCAAAGGCCTGTTCCGCCTCCGCCCAGTTTGGAGAACATTTATAAAGAGTTGTCTACAGACATAGAGGATT
TTGTTCATCCTGGCCATGGAGATTTATCTGGGTGGGCCAAGCAAGGTGTTCTCCTTCTCAACGCTGTCCTCACGG
TTCGTGCCCATCAAGCCAACTCTCATAAGGAGCGAGGCTGGGAGCAGTTCACTGATGCAGTTGTGTCCTGGCTAA
ATCAGAACTCGAATGGCCTTGTTTTCTTGCTCTGGGGCTCTTATGCTCAGAAGAAGGGCAGTGCCATTGATAGGA
AGCGGCACCATGTACTACAGACGGCTCATCCCTCCCCTTTGTCAGTGTATAGAGGGTTCTTTGGATGTAGACACT
TTTCAAAGACCAATGAGCTGCTGCAGAAGTCTGGCAAGAAGCCCATTGACTGGAAGGAGCTGTGATCATCAGCTG
AGGGGTGGCCTTTGAGAAGCTGCTGTTAACGTATTTGCCAGTTACGAAGTTCCACTGAAAATTTTCCTATTAATT
CTTAAGTACTCTGCATAAGGGGGAAAAGCTTCCAGAAAGCAGCCATGAACCAGGCTGTCCAGGAATGGCAGCTGT
ATCCAACCACAAACAACAAAGGCTACCCTTTGACCAAATGTCTTTCTCTGCAACATGGCTTCGGCCTAAAATATG
CAGAAGACAGATGAGGTCAAATACTCAGTTGGCTCTCTTTATCTCCCTTGCCTTTATGGTGAAACAGGGGAGATG
TGCACCTTTCAGGCACAGCCCTAGTTTGGCGCCTGCTGCTCCTTGGTTTTGCCTGGTTAGACTTTCAGTGACAGA
TGTTGGGGTGTTTTTGCTTAGAAAGGTCCCCTTGTCTCAGCCTTGCAGGGCAGGCATGCCAGTCTCTGCCAGTTC
CACTGCCCCCTTGATCTTTGAAGGAGTCCTCAGGCCCCTCGCAGCATAAGGATGTTTTGCAACTTTCCAGAATCT
GGCCCAGAAATTAGGGCTCAATTTCCTGATTGTAGTAGAGGTTAAGATTGCTGTGAGCTTTATCAGATAAGAGAC
CGAGAGAAGTAAGCTGGGTCTTGTTATTCCTTGGGTGTTGGTGGAATAAGCAGTGGAATTTGAACAAGGAAGAGG
AGAAAAGGGAATTTTGTCTTTATGGGGTGGGGTGATTTTCTCCTAGGGTTATGTCCAGTTGGGGTTTTTAAGGCA
GCACAGACTGCCAAGTACTGTTTTTTTTAACCGACTGAAATCACTTTGGGATATTTTTCCTGCAACACTGGAAA
GTTTTAGTTTTTTAAGAAGTACTCATGCAGATATATATATATATATTTTTCCCAGTCCTTTTTTTAAGAGACGGT
CTTTATTGGGTCTGCACCTCCATCCTTGATCTTGTTAGCAATGCTGTTTTGCTGTTAGTCGGGTTAGAGTTGGC
TCTACGCGAGGTTTGTTAATAAAAGTTTGTTAAAAGTTTAAAAAAAAAAAAAAAAAA

FIGURE 199

MIGQKTLYSFFSPSPARKRHAPSPEPAVQGTGVAGVPEESGDAAAIPAKKAPAGQEEPGTPPSSPLSAEQLDRIQ
RNKAAALLRLAARNVPVGFGESWKKHLSGEFGKPYFIKLMGFVAEERKHYTVYPPPHQVFTWTQMCDIKDVKVVI
LGQDPYHGPNQAHGLCFSVQRPVPPPPSLENIYKELSTDIEDFVHPGHGDLSGWAKQGVLLLNAVLTVRAHQANS
HKERGWEQFTDAVVSWLNQNSNGLVFLLWGSYAQKKGSAIDRKRHHVLQTAHPSPLSVYRGFFGCRHFSKTNELL
QKSGKKPIDWKEL

FIGURE 200

ACCGCCGACGCAGACCCCTCTCTGCACGCCAGCCCGCCCGCACCCACC**ATG**GCCACAGTTCAGCAGCTGGAAGGA
AGATGGCGCCTGGTGGACAGCAAAGGCTTTGATGAATACATGAAGGAGCTAGGAGTGGGAATAGCTTTGCGAAAA
ATGGGCGCAATGGCCAAGCCAGATTGTATCATCACTTGTGATGGTAAAAACCTCACCATAAAAACTGAGAGCACT
TTGAAAACAACACAGTTTTCTTGTACCCTGGGAGAGAAGTTTGAAGAAACCACAGCTGATGGCAGAAAAACTCAG
ACTGTCTGCAACTTTACAGATGGTGCATTGGTTCAGCATCAGGAGTGGGATGGGAAGGAAAGCACAATAACAAGA
AAATTGAAAGATGGGAAATTAGTGGTGGAGTGTGTCATGAACAATGTCACCTGTACTCGGATCTATGAAAAAGTA
GAA**TAA**AAATTCCATCATCACTTTGGACAGGAGTTAATTAAGAGAATGACCAAGCTCAGTTCAATGAGCAAATCT
CCATACTGTTTCTTTCTTTTTTTTTTCATTACTGTGTTCAATTATCTTTATCATAAACATTTTACATGCAGCTAT
TTCAAAGTGTGTTGGATTAATTAGGATCATCCCTTTGGTTAATAAATAAATGTGTTTGTGCT

FIGURE 201

MATVQQLEGRWRLVDSKGFDEYMKELGVGIALRKMGAMAKPDCIITCDGKNLTIKTESTLKTTQFSCTLGEKFEE
TTADGRKTQTVCNFTDGALVQHQEWDGKESTITRKLKDGKLVVECVMNNVTCTRIYEKVE

FIGURE 202

GGGACTACATTTCCCAGGGGGCAGAGGCAGGGGCGGGAGGGGGCGGGCCCCGGCGCTGCTCCCGCCCCTCCCCCG
TGCTCGCGGGGAGAGGTAAACAAACCACGCGCGGGCTGCCCGCGGCACGGCGGGCGCGGCTGGCGCGGCTGGGGC
GGCAGGGGCGGCGGAGAGCGCGCCGAGCCGCGGCCGAGCTGGCCCGCCCGCCCGTCGCACATGTTCCGGAACGGC
GCCCGGCCGTAGCCGCCTGCGGCGCCTCCTGTCGGCCCGAGAAGGGAGTGCGGAGAGGCGCCGGTCGCCACCCGC
GGTGCCC**ATG**GAGCGGGTGAAGATGATCAACGTGCAGCGTCTGCTGGAGGCTGCCGAGTTTTTGGAGCGCCGGGA
GCGAGAGTGTGAACATGGCTACGCCTCTTCATTCCCGTCCATGCCGAGCCCCCGACTGCAGCATTCAAAGCCCCC
ACGGAGGTTGAGCCGGGCACAGAAACACAGCAGCGGGAGCAGCAACACCAGCACTGCCAACAGATCTACACACAA
TGAGCTGGAAAAGAATCGACGAGCTCATCTGCGCCTTTGTTTAGAACGCTTAAAAGTTCTGATTCCACTAGGACC
AGACTGCACCCGGCACACAACACTTGGTTTGCTCAACAAAGCCAAAGCACACATCAAGAAACTTGAAGAAGCTGA
AAGAAAAAGCCAGCACCAGCTCGAGAATTTGGAACGAGAACAGAGATTTTTAAAGTGGCGACTGGAACAGCTGCA
GGGTCCTCAGGAGATGGAACGAATACGAATGGACAGCATTGGATCAACTATTTCTTCAGATCGTTCTGATTCAGA
GCGAGAGGAGATTGAAGTGGATGTTGAAAGCACAGAGTTCTCCCATGGAGAAGTGGACAATATAAGTACCACCAG
CATCAGTGACATTGATGACCACAGCAGCCTGCCGAGTATTGGGAGTGACGAGGGTTACTCCAGTGCCAGTGTCAA
ACTTTCATTCACTTCA**TAG**AACCCAGCATGACATAACAGTGCAGGGCAAAATATTCACTGGGCCAATTCAATACA
AACAATCTCTTAAATTGGGTTCATGATGCAGTCTCCTCTTTAAAACAAAACAAAACAAAACAAAACTATACTTGA
ACAAAAGGGTCAGAGGACCTGTATTTAAGCAAATACTTAGCAAAAGTGGGGCAGAGCCTCCCAAGGAGAACAAA
TATTCAGAATATTCATATTGGAAAAATCACAATTTTTAATGGCAGCAGAAAACTTGTGTGAAATTTTCTTGATTT
GAGTTGATTGAGAAGAGGACATTGGAGATGCCATCCTCTTTCTCTTTTCTAGTTTGCTCATACTACATTGAGTAG
ACACATTTAAGGATGGGGTTATGAACCCTTCCTGAGCTTTATGGTCCTAAAAGCAAAATAAAAACTATTCGAATG
AAAAGACAAGAAAATCAGGTATTAATCTTGGATAGCTAATAATGAGCTATTAAAACTCAGCCTGGGACAGTTTAT
CATGAAGCCTGTGGATGATCAATCCTTTATTATTATTTTTTTTTTTGAAAAAAGCTCATTTCATGCTCTGCAAA
AGGAGAGACTCCCATGAAGCCTTTTGAAAGGGATCATCATGCAGCTCAACTTTCTGTTGGATTCCATGCTAAGCA
AGCTAACCTTATCCTGCATTGTTAGCACTAGGCACCCAGCTGCCACCTCTCCATCCTGCTGCCCTTAGGCCACAT
GGGAGCAGTCCATGCATGACAGCCTCTATCCTACAAGGCCTATGAGTATGGATTGGGGGGGGCCAAAAGGAAAAAG
CTCCATGTGCCTCTTTGTCTGCGTGGGTCAGAAGAGTTGTGCACGCAGATTAGCAGGCCAAGGTCTGAGCCACAG
CAGCATTTTTATTTCAGATTTTGATAACTGTTTATATGTGTTGAAAACCAAAATGACATCTTTTTAAAGCTTATC
CATAAAAAAAAATAGATGTCTTTTATAGTGGAAAAACACATGGGGAAAAAAATCATCTATTTTGATGCAGCATTT
GATAATGATAAAACACCTCACACCTCACTCTTTATAGTGCACAAAATGAATGAGGTCTGGGCTAGGTAGAAAAAG
GGTCAATGCTATTTTTGTTTTTAGAATCATTACCTTTTACCAGCTTTTAACCATCTGATATCTATAGTAGACACA
CTATCATAGTTAACATAGTTAAGTTCAGCACTTGTCTCATTTTAATGTAAAGATTTGCTTCCATTTTCCTACAGG
CAGTCTCTCTCTTCCTCACAGTCCCACTGTGCAGGTGCTATTGTTACTCTTACGAATATTTTCAGTAATGTTATT
TTCTTCTAAGTGAAATTTCTAGCCTGCACTTTGATGTCATGTGTTCCCTTTGTCTTTCAAACTCCAAGGTTCCCC
TGTGGCCCTCTCCCTTACCCTGGGAAGGCCTCTTGGAGACCTTACCCCTGGCTGTTTGGACTTTGTATACTTTAA
ATAATTTAACTACCCTTAATTACTTAAAAAAAAAAAAAAAGCTTTATGATTTTCATAACTTATTGCTGATTTTAAT
GGATTGTTAATTTCAGTCCTGTAGTTTTATTTTATGTTTAGATAGGGCTGGGCAAGGAAAAAGAAAATAAAGACA
ACCATATTTAGCAGTGCA

FIGURE 203

MERVKMINVQRLLEAAEFLERRERECEHGYASSFPSMPSPRLQHSKPPRRLSRAQKHSSGSSNTSTANRSTHNEL
EKNRRAHLRLCLERLKVLIPLGPDCTRHTTLGLLNKAKAHIKKLEEAERKSQHQLENLEREQRFLKWRLEQLQGP
QEMERIRMDSIGSTISSDRSDSEREEIEVDVESTEFSHGEVDNISTTSISDIDDHSSLPSIGSDEGYSSASVKLS
FTS

FIGURE 204A

CGGTGCTGGAGAAGTTTGCGCTGCGGTTCGTGAGCGCAGGGTGCGGGCCCCGCCGGCCGCTGCGCGCCCGCTGCC
ATGGCTTTCCGCAGGAGGACGAAAAGTTACCCGCTCTTCAGCCAGGAGTTCGTCATCCACAACCATGCGGACATC
GGCTTCTGCCTGGTGCTCTGCGTCCTCATCGGGCTTATGTTCGAGGTCACAGCCAAGACTGCCTTTCTATTTATT
TTACCTCAGTATAACATTAGCGTGCCTACAGCAGACAGTGAGACCGTGCACTACCACTATGGCCCTAAGGACCTG
GTCACAATCTTGTTCTACATCTTCATCACCATCATCTTGCATGCTGTGGTTCAGGAGTACATTTTAGATAAAATC
AGCAAACGGCTTCATCTCTCCAAAGTCAAACACAGCAAGTTCAATGAATCTGGACAGCTGGTCGTCTTTCATTTC
ACCTCGGTGATTTGGTGCTTCTACGTGGTGGTGACGGAAGGATACTTAACAAACCCAAGAAGCCTCTGGGAAGAC
TACCCGCATGTGCACCTCCCCTTCCAGGTGAAGTTTTTCTACCTATGCCAGCTGGCCTACTGGCTGCACGCACTT
CCTGAGCTATACTTCCAGAAGGTACGGAAGGAGGAAATTCCCCGCCAGCTCCAGTATATTTGCCTGTACCTGGTG
CATATAGCTGGAGCATACCTCTTAAACCTGAGCCGCCTGGGCCTGATCTTGCTGCTGCTGCAGTACTCAACTGAG
TTCCTCTTCCACACGGCTAGACTCTTCTACTTTGCAGATGAAAACAACGAGAAACTGTTCAGTGCCTGGGCTGCT
GTTTTTGGGGTTACCCGCCTCTTCATCCTCACCCTTGCCGTGCTGGCCATTGGCTTTGGACTGGCTCGCATGGAA
AACCAGGCATTTGATCCCGAGAAAGGGAACTTCAACACTTTGTTTTGCAGGCTCTGCGTGCTGCTGCTGGTGTGT
GCCGCCCAGGCCTGGCTCATGTGGCGCTTCATCCACTCCCAGCTGCGGCACTGGCGGGAATACTGGAATGAGCAG
AGTGCAAAGCGGAGAGTCCCAGCCACACCCAGACTACCAGCCAGGCTCATCAAGAGGGAATCTGGTTACCATGAA
AATGGAGTGGTGAAGGCAGAGAACGGAACCTCCCCACGGACTAAGAAACTCAAGTCTCCC**TAA**GGCCAAAGTGCT
AAGAACAGGAATCCTCTTGGTGGGGGCCGAGCAGGGGGCAAGGAGCCCAGGCCCCCTCCCTGCCTCCTCCTTCCT
GCCTGTGATGCTCCGTCTCAAACAGCCGAAACCTGTCTTGCAATGGGGGGGAGGGGGCGTTTCGCTTTCCTTCTTC
TTGGCTTCCTCTTATTCTTCCACAAACCATTCTCAATAAAGCCAAAAATCTTTCTCTTTCTCCCCCTCAGGCCAC
CTCCTGTCCTCACTCCTGTCCTGTGCTGGCTTTTCTGGAACGCCAGGCGCCCATGGCTGGCACCTTTCTGCTTGC
TCTGTTTCTTGCCTTATGGCTGCTGCTTTTCCTTTTTACTTCCTATTTTCACCTTATCTTGCAATTTTTCTGTCT
GATTTTTACAATGGGAGGGGAGCTAAGATTGCAGTCCTGTCCTTCGGTCCCCCAGGGCCTGCCGGTCAGAAGCCT
GGGGCTGGTAGGCCCTTGGTGGTCCTCATGTGGATGGGCAAGAAGAGAGCGGCCATCTCGGATCATAATCTCCTT
GGTGCTGATTAACTGACGAGATATATGATTCCAGTTCTGCATGTACCATCTTGAGGCACAGCAGCCACTGCTCGT
TGTAAATGCCAAGGCATTTGGCTTTGGGACGTGACAACTCAATCCAGAAGGATGGTGTGAACTCGGTTGGGTCCC
GTGACTCGAGCTCCTACCAGTGGCTGGCCGCGGATTGGAAGCCAGCCTGCTGTCGCTCTGTGGGGAGGACATGTC
TTCCCACTGCTTAGAGCGAGAGCAGAGCAAACTGCGCAGCAGGCACCTCCAGAAAGGTAATGGTGGCAGAACCCA
CAGTGGAGTCGACCTAGGCCTTTCTCCAGCAGTCCCAGTCGCCATTGCTTTTTCAGCCATTCACAAGCATTCAAA
ACCAAACCAAACAGCAGTTCATATACCTGCCTGAGATAGGCTGGTCCTCACCTCCAGAGCCAGCCAGCCCCGTCA
GGGGCCAAACTTACTACCTTGACTTCATCTCTAGCTGCAGAAACACTAAGTCTCAAGGGCTTCAGCCCCATGCTG
GTCCCTTGGTGTTCAGGGAGGGTCACTTGGACCGCTGTTCATCTGGCCGCCCTTGTTGAGTGTTCTTTGGAATTG
TCGTTTTTTGAGCACAACTACAGCATTTTAGACTGCATGAAACCATGACTGACTGAGAGTCACTCTCTGGGTAGA
TGATAGGCGCCTTTCTGGCCCCTTCCCTCACAGATTCTTTCCCCTCCCCTCCACCTGAAGAGAAGGCCTCCAAGT
CCTTTTGGTGCCTTGTGAGGACTTTTAGAAGGGGCGTTCAGCTTTAAAAAGCCGGTCCTAATTACGGCCGGACGC
AGTAGCTTACGCCTGTTATCCCAGCACTTTGGGAGGTCGAGGTGGGCAGATCACCTGAGGTTAGGAGTTCAAGAC
CAGCCTGGCCAACATGGTGAAACCCCATCTCTACTAAAAATACAAAAAATTAGGTGTAGTGGCAGGCACCTGTAA
TCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATCGCTTGAACCTAGAAGGTGGAGGTTGCAGTGAGCGGAGATTG
TACCATGGCACTCCAGCCTGGACAACAAGAGCGAAATTCTGTCTAAAAAAACAAAAGTCCCAATTAAGAACCTCC
GAACTCTGTTTTGAGGCAAAGGGGAGTAGTTCTTGGTAGGTGCAGGAATAGTAGTGTCATTTGGAATACTGGTCA
TCTTTCTGACATCACAGTAGAAACCAAACCTTGGATTTAGATTCAAAAGGGGGGAAATGGGTCTTTTCATCAAGG
CAACTCCCCTTCTCCAAGTCACTTACATCATAGATAAATTTTAGCTTCCCAGTAACTGAGGGATTTGTTTCCTAA
CGCCATTGGAGGCCTTCATCCCTCTCTACGATAAGGTTGCAGAAATGGGAAGAGCTACCCGTGGTTGCTTTTGAT
TACCCTTAGGAAGTGAGACAGTGTTTTTGAAAATATGTATTTCTCCCATTTCTCCCTCTCCTTCCCTGACACTTC
TCTGGGCTGCACAGCAGAAACGTTGGTAAAAGGGCAGTTTGGTTTCAACACAGCAGACCTGATATGGGATCCCTT
AGCCACTTTAGTCAAACAGCCCTGACAGAGTCTATAATTGAGTTCAGGCCCCCCACCTTGCCTAATAACTGCAAA
TCGCATGTTCAGCCAGCAGCCTCCTAAGCCCACCTTCCTCCCCCATTAGAGAACACCCATCCTAGGTGCTCTCCA
GGCTGTGTCATTGGCAGGGCTTCACATGCAGGAGGCCTCTCTCAGGTGAGTCCAGGTTAAACTGTTGAGTTGTGG
CTTCAACAGATATGTATGGCATGCTGGGATGTGCCAGGTGCCTGCGTTGTGCCAGTTGCTGGAGAGGTAGTGTGA

FIGURE 204B

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GCAGAGCAGCTGAAATCTTGCCATCAAGCAACCCTCATTCTCATGCCTGTAGGTTTCCATTGCTCTGTCCCAGGA
CACTTGCGTGCCAGAGACGCCACAACTTCATGTCCCTGTCTCTTGCAAGCTCCCCGTGCTGCCAGTACTTCATGC
CTTGGATGTGGTCCCACCAGCCCAGTGGCTGGGGTCAGCTTAGGCTCTGCTTCCCAGTGGACGGGTGTGCTAAGG
GTTTATTTTATGTAAAAAAAAAAAAAAAAACAAAAAAAAACCCTGAGACCATGAGTGGGGCTGGCATCTTGCCAGC
CTGGGCTTCAGGGATGTTTGGGGGGGGTGGTTAGAGGGTAGTTGTAGGGTACTTTGTCACCCCCTCCCCCTGCC
ACCCTCCCTGGCACGTTTATTTCACAGCAGAGCCAAGTCTGTGGCAGGTTGACACAGACTGTGTTGCCAGAGCTG
AAATAATTCCACTTCATCCTATGAGCGTGTTGGGCTAGCTTGTTCTAATTTTGGCCACTTTGGCTGTTTTCTTCA
GTTTTATGCATTCTCTCCTGCCCCAAAGTGCCAAGCCATTTGTGAAGGCTCTGCCAGACACCTCCAAGCTTGAGA
GCTCAGCACCATGCACCAAGAGCAGGAGAAAAGACGTAAACCTACCCCAGCAACTGTGGCCTCTCGACAGCCCTG
GCTAACTAACTTACATTTGTGGGGAAGCCAACAGACACAGCAGGAGGAGAGGGAGGTGGCGCTGGTGGACCAAGG
ATCTGTGCTACCCGCTCCCCTCCTTGGAGGTGCAGTGATGATGGGAGTTATTTTTACCATCCGGGCGCTGATAGC
TGCACTATTAATAAATTGCATGTGTTCCTTTTGAAGGTAGGGGATGGTTCTGGGTGAGAGGGGAGCAGGCTGAGC
CGGCGGGGGATCTGCTGTCCTCCCTTTTGAGTCAGTTCTAATCCCATGTGTGTCTGGGCCACCAGACCGAAATGG
TTGCTGAGAAACTTGTCTGTTCATGTCCCAAGGCATAACTTCCCAACATTTAAGAAACCCCAATAGACACCTCTG
CCCTGGCCACGTTCACAGATCCTTCTCTTGACCGGAAACCCTGGGACCCTAAGAACCCCTGAAGCTTGGGGTGGG
TGTGTGCTTCTGGGGTCTCTTTTGGGACCTCCTTTGTCAGTACCCCTTCTTTTTTCTAAGCAGCTAATAAGAGGT
TGGGTGAAAGAGTGCATCTCCTCCCAGGATTCCACAACAAAATTCTTATCTTCCATGGATGCTTTAATTGGAAGT
GGGTTGCCGACCCCCTTGTGCCTAGAAAAGGCCTTTGCTTGGGTTTCCTTTGTATGCTTCAGCCTTCCTAGTTGG
TTTTTCTAGGCCTGGTGTGAGAGGTAGGGAAGTCTGCACATAACTAATTCTTTTGCTTAAGGGCCTATGGCACAA
GTGCACAAACTTCAATTCTTGATGTTCTAAGCTCTCTCCTCTAACAGAGGGAGTGCTGAAAGCTTTTGAGTCAAG
ACAATGGAGTGCTCTTCCTCCCTCACTCTGCCTTCCGAGCTTATGGTTCCTTTTCTCAGGAGAGGATTTTCAGGA
TTATTGGAGGATTAGGTCATTGTCAGATGACTGGAAAACCTAAATAGGATCTCTCTCCAGCTCAAGGTTGTCCCA
GTGAGGAAGACTTTACCAACTTCTCACTCTACCCCACTACTCACATGAGTGTTAGCTCCACCTTGCAAAGGCTGA
AGACCAGTTCTCCCCAGTGAAAGCTGCCTCATTCTTTTATGGAGTTCCCTGGAGTGGCAGAGCTATAAAGACGAG
CATTGGGATTTGCAGTCTCCATGTAGCCTTTCGTGCTTGGCAACCCCTGTAGACTTTTTGTCCCAAGCAGATTGC
GTGCGTGCGCCTGTGTGTGAGAATAAGTGCCTTACTTTGCTGTGTGGTTTTCAACTTGTACTCCGTGGCCAGCCC
CCAGTTGCCAGGGCTCGACGGCAGCCAAGGACACCATACCTCAGTATAGTTATATATAAAATGGACACGGATTGT
GACAGTTTCACCCCATTTGTTTCTAACCCCGCTGCCCAGGATTAGGGTCTGTGGTGTGTTCTGTTTTGTTTTTGG
TTTCTCCCTTGTGTCAGTTCTCTTCTGGCCCAGCTGGGTGGCTGTGGAAGTCTGTGAGGTGGCCCAACCACAAGC
ATACCTATTAAGAGAAGCCCAGAGCTTCCAGCCCCCACTTCGAAAACTCTCCTCTGGCCCCACATAGCAAACTCC
TTCTCCGTTATTTTCCCCACCCCCAGATTTTTTTTAAAAGGCCCACTTGCCATAACCTCTTTTGGTCTATTTTGC
TTCCCATTCAGCCCAAAGTTTATATGATAAAGGTGTTTACTTTTACTTCCCAGTCTCCAAGTGCTAACACATAAA
CACATACATGTCTGACTGTTGCAGAACTGTTCGAGCTCCTAATTCAGTGTTACCTTGTTTTAGTCGCAGCAACCC
TCTCCCCTACCCCTTGCCCGCCCACGTTTTTCTCACTCTTCCGGGTTGTGCAATAACTCTCCCAGCCAGTGGTCC
TTTCCACAGCCTTTCTGTCCCTTAAAACACCTGCAACTGGGGGAGAAATGGGACCCATGGGAGGGGGAGTCATCA
TCCCTTACACAAGAAATAGCCACTTTCCTTTTGTTGTCATTCTTGTGATCCTGGGTGGGTTTCTGTGGCACTCTT
TTAGAACATGTAGCATCATCTTAGAGGTCTATTTTTAAAAAATGTGTTGAAGAGGAAAAAACCATTCTCACGATG
GGGCTTAAGTCATTGTCCAGGAATAAGATTGGCGTGGTGCCCATGACATCACCGTCACTCTGCCTAAAAGCACTC
TAGAGCTACTTGTTCACGTGGAGAGGAAGGATATTTGCGAAGCAACAGCCGCAGGTGGAGAGCCCTGTTCACCT
GATAGGGTCTAGCTGTGACAGTAAATATAATACCGCTGTTCCTTGGGTACAGATTTGAGTGTTCATGTGATGAG
ACTGTAAACCTCATTTTTCGGTTCCTCTGTTTAAAAAAACATCTGAAGGATGAACTAAGGCTGCTGGTGCCCTGA
GCAACTGATAATGCAAATGTGGACAAAGTGTCTGTTTTCTACTCTAGCCTGTTCATATGGACCAAATTTCAACAA
GGAACTCAAGGAAAATTTGTACCTGCCGTATTTATGCTTTCATGTAAAAAGGGTTGGGGGGAGGGGTGTCTTTT
TGCTTTTGGTGAACTTTTTTTCAAAATCATTTTTCCACTGTTTCTGTCTGGTTTTAAAACAAATTACAGTTTTGT
ATGGATTTTTTAAATGTACATTTTGGAACAAATGATCAAATATTTTCTGAAATAACAATAAAAGGCAGAAAATT
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FIGURE 205

MAFRRRTKSYPLFSQEFVIHNHADIGFCLVLCVLIGLMFEVTAKTAFLFILPQYNISVPTADSETVHYHYGPKDL
VTILFYIFITIILHAVVQEYILDKISKRLHLSKVKHSKFNESGQLVVFHFTSVIWCFYVVVTEGYLTNPRSLWED
YPHVHLPFQVKFFYLCQLAYWLHALPELYFQKVRKEEIPRQLQYICLYLVHIAGAYLLNLSRLGLILLLLQYSTE
FLFHTARLFYFADENNEKLFSAWAAVFGVTRLFILTLAVLAIGFGLARMENQAFDPEKGNFNTLFCRLCVLLLVC
AAQAWLMWRFIHSQLRHWREYWNEQSAKRRVPATPRLPARLIKRESGYHENGVVKAENGTSPRTKKLKSP

FIGURE 206

AAAACAGCCGGGGCTCCAGCGGGAGAACGATA**ATG**CAAAGTGCTATGTTCTTGGCTGTTCAACACGACTGCAGAC
CCATGGACAAGAGCGCAGGCAGTGGCCACAAGAGCGAGGAGAAGCGAGAAAGATGAAACGGACCCTTTTAAAAG
ATTGGAAGACCCGTTTGAGCTACTTCTTACAAAATTCCTCTACTCCTGGGAAGCCCAAAACCGGCAAAAAAGCA
AACAGCAAGCTTTCATCAAGCCTTCTCCTGAGGAAGCACAGCTGTGGTCAGAAGCATTTGACGAGCTGCTAGCCA
GCAAATATGGTCTTGCTGCATTCAGGGCTTTTTTAAAGTCGGAATTCTGTGAAGAAAATATTGAATTCTGGCTGG
CCTGTGAAGACTTCAAAAAAACCAAATCACCCCAAAAGCTGTCCTCAAAAGCAAGGAAAATATATACTGACTTCA
TAGAAAAGGAAGCTCCAAAAGAGATAAACATAGATTTTCAAACCAAAACTCTGATTGCCCAGAATATACAAGAAG
CTACAAGTGGCTGCTTTACAACTGCCCAGAAAAGGGTATACAGCTTGATGGAGAACAACTCTTATCCTCGTTTCT
TGGAGTCAGAATTCTACCAGGACTTGTGTAAAAAGCCACAAATCACCACAGAGCCTCATGCTACA**TGA**AATGTAA
AAGGGAGCCCAGAAATGGAGGACATTTCATTCTTTTTCCTGAGGGGAAGGACTGTGACCTGCCATAAAGACTGAC
CTTGAATTCAGCCTGGGTGTTCAGGAAACATCACTCAGAACTATTGATTCAAAGTTGGGTAGTGAATCAGGAAGC
CAGTAACTGACTAGGAGAAGCTGGTATCAGAACAGCTTCCCTCACTGTGTACAGAACGCAAGAAGGGAATAGGTG
GTCTGAACGTGGTGTCTCACTCTGAAAAGCAGGAATGTAAGATGATGAAAGAGACAATGTAATACTGTTGGTCCA
AAAGCATTTAAAATCAATAGATCTGGGATTATGTGGCCTTAGGTAGCTGGTTGTACATCTTTCCCTAAATCGATC
CATGTTACCACATAGTAGTTTTAGTTTAGGATTCAGTAACAGTGAAGTGTTTACTATGTGCAAGGGTATTGAAGT
TCTTATGACCACAGATCATCAGTACTGTTGTCTCATGTAATGCTAAAACTGAAATGGTCCGTGTTTGCATTGTTA
AAAATGATGTGTGAAATAGAATGAGTGCTATGGTGTTGAAAACTGCAGTGTCCGTTATGAGTGCCAAAAATCTGT
CTTGAAGGCAGCTACACTTTGAAGTGGTCTTTGAATACTTTTAATAAATTTATTTTGATAAATAATATTG

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FIGURE 207

MQSAMFLAVQHDCRPMDKSAGSGHKSEEKREKMKRTLLKDWKTRLSYFLQNSSTPGKPKTGKKSKQQAFIKPSPE
EAQLWSEAFDELLASKYGLAAFRAFLKSEFCEENIEFWLACEDFKKTKSPQKLSSKARKIYTDFIEKEAPKEINI
DFQTKTLIAQNIQEATSGCFTTAQKRVYSLMENNSYPRFLESEFYQDLCKKPQITTEPHAT

FIGURE 208

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CTGCTCGCGGCCGCCACCGCCGGGCCCCGGCCGTCCCTGGCTCCCCTCCTGCCTCGAGAAGGGCAGGGCTTCTCA
GAGGCTTGGCGGGAAAAAAGAACGGAGGGAGGGATCGCGCTGAGTATAAAAGCCGGTTTTCGGGGCTTTATCTAA
CTCGCTGTAGTAATTCCAGCGAGAGGCAGAGGGAGCGAGCGGGCGGCCGGCTAGGGTGGAAGAGCCGGGCGAGCA
GAGCTGCGCTGCGGGCGTCCTGGGAAGGGAGATCCGGAGCGAATAGGGGGCTTCGCCTCTGGCCCAGCCCTCCCG
CTTGATCCCCCAGGCCAGCGGTCCGCAACCCTTGCCGCATCCACGAAACTTTGCCCATAGCAGCGGGCGGGCACT
TTGCACTGGAACTTACAACACCCGAGCAAGGACGCGACTCTCCCGACGCGGGGAGGCTATTCTGCCCATTTGGGG
ACACTTCCCCGCCGCTGCCAGGACCCGCTTCTCTGAAAGGCTCTCCTTGCAGCTGCTTAGACGCTGGATTTTTTT
CGGGTAGTGGAAAACCAGCAGCCTCCCGCGACG**ATG**CCCCTCAACGTTAGCTTCACCAACAGGAACTATGACCTC
GACTACGACTCGGTGCAGCCGTATTTCTACTGCGACGAGGAGGAGAACTTCTACCAGCAGCAGCAGCAGAGCGAG
CTGCAGCCCCGGCGCCCAGCGAGGATATCTGGAAGAAATTCGAGCTGCTGCCCACCCCGCCCCTGTCCCCTAGC
CGCCGCTCCGGGCTCTGCTCGCCCTCCTACGTTGCGGTCACACCCTTCTCCCTTCGGGGAGACAACGACGGCGGT
GGCGGGAGCTTCTCCACGGCCGACCAGCTGGAGATGGTGACCGAGCTGCTGGGAGGAGACATGGTGAACCAGAGT
TTCATCTGCGACCCGGACGACGAGACCTTCATCAAAAACATCATCATCCAGGACTGTATGTGGAGCGGCTTCTCG
GCCGCCGCCAAGCTCGTCTCAGAGAAGCTGGCCTCCTACCAGGCTGCGCGCAAAGACAGCGGCAGCCCGAACCCC
GCCCGCGGCCACAGCGTCTGCTCCACCTCCAGCTTGTACCTGCAGGATCTGAGCGCCGCCGCCTCAGAGTGCATC
GACCCCTCGGTGGTCTTCCCCTACCCTCTCAACGACAGCAGCTCGCCCAAGTCCTGCGCCTCGCAAGACTCCAGC
GCCTTCTCTCCGTCCTCGGATTCTCTGCTCTCCTCGACGGAGTCCTCCCCGCAGGGCAGCCCCGAGCCCCTGGTG
CTCCATGAGGAGACACCGCCCACCACCAGCAGCGACTCTGAGGAGGAACAAGAAGATGAGGAAGAAATCGATGTT
GTTTCTGTGGAAAAGAGGCAGGCTCCTGGCAAAAGGTCAGAGTCTGGATCACCTTCTGCTGGAGGCCACAGCAAA
CCTCCTCACAGCCCACTGGTCCTCAAGAGGTGCCACGTCTCCACACATCAGCACAACTACGCAGCGCCTCCCTCC
ACTCGGAAGGACTATCCTGCTGCCAAGAGGGTCAAGTTGGACAGTGTCAGAGTCCTGAGACAGATCAGCAACAAC
CGAAAATGCACCAGCCCCAGGTCCTCGGACACCGAGGAGAATGTCAAGAGGCGAACACACAACGTCTTGGAGCGC
CAGAGGAGGAACGAGCTAAAACGGAGCTTTTTTGCCCTGCGTGACCAGATCCCGGAGTTGGAAAACAATGAAAAG
GCCCCCAAGGTAGTTATCCTTAAAAAAGCCACAGCATACATCCTGTCCGTCCAAGCAGAGGAGCAAAAGCTCATT
TCTGAAGAGGACTTGTTGCGGAAACGACGAGAACAGTTGAAACACAAACTTGAACAGCTACGGAACTCTTGTGCG
**TAA**GGAAAAGTAAGGAAAACGATTCCTTCTAACAGAAATGTCCTGAGCAATCACCTATGAACTTGTTTCAAATGC
ATGATCAAATGCAACCTCACAACCTTGGCTGAGTCTTGAGACTGAAAGATTTAGCCATAATGTAAACTGCCTCAA
ATTGGACTTTGGGCATAAAAGAACTTTTTTATGCTTACCATCTTTTTTTTTTCTTTAACAGATTTGTATTTAAGA
ATTGTTTTTAAAAAATTTTAA
```

FIGURE 209

MPLNVSFTNRNYDLDYDSVQPYFYCDEEENFYQQQQQSELQPPAPSEDIWKKFELLPTPPLSPSRRSGLCSPSYV
AVTPFSLRGDNDGGGGSFSTADQLEMVTELLGGDMVNQSFICDPDDETFIKNIIIQDCMWSGFSAAAKLVSEKLA
SYQAARKDSGSPNPARGHSVCSTSSLYLQDLSAAASECIDPSVVFPYPLNDSSSPKSCASQDSSAFSPSSDSLLS
STESSPQGSPEPLVLHEETPPTTSSDSEEEQEDEEEIDVVSVEKRQAPGKRSESGSPSAGGHSKPPHSPLVLKRC
HVSTHQHNYAAPPSTRKDYPAAKRVKLDSVRVLRQISNNRKCTSPRSSDTEENVKRRTHNVLERQRRNELKRSFF
ALRDQIPELENNEKAPKVVILKKATAYILSVQAEEQKLISEEDLLRKRREQLKHKLEQLRNSCA

FIGURE 210

GGCAGGCATGGGAGCCGCGCGCTCTCTCCCGGCGCCCACACCTGTCTGAGCGGCGCAGCGAGCCGCGGCCCGGGC
GGGCTGCTCGGCGCGGAACAGTGCTCGGC**ATG**GCAGGGATTCCAGGGCTCCTCTTCCTTCTCTTCTTTCTGCTCT
GTGCTGTTGGGCAAGTGAGCCCTTACAGTGCCCCCTGGAAACCCACTTGGCCTGCATACCGCCTCCCTGTCGTCT
TGCCCCAGTCTACCCTCAATTTAGCCAAGCCAGACTTTGGAGCCGAAGCCAAATTAGAAGTATCTTCTTCATGTG
GACCCCAGTGTCATAAGGGAACTCCACTGCCCACTTACGAAGAGGCCAAGCAATATCTGTCTTATGAAACGCTCT
ATGCCAATGGCAGCCGCACAGAGACGCAGGTGGGCATCTACATCCTCAGCAGTAGTGGAGATGGGGCCCAACACC
GAGACTCAGGGTCTTCAGGAAAGTCTCGAAGGAAGCGGCAGATTTATGGCTATGACAGCAGGTTCAGCATTTTTG
GGAAGGACTTCCTGCTCAACTACCCTTTCTCAACATCAGTGAAGTTATCCACGGGCTGCACCGGCACCCTGGTGG
CAGAGAAGCATGTCCTCACAGCTGCCCACTGCATACACGATGGAAAAACCTATGTGAAAGGAACCCAGAAGCTTC
GAGTGGGCTTCCTAAAGCCCAAGTTTAAAGATGGTGGTCGAGGGGCCAACGACTCCACTTCAGCCATGCCCGAGC
AGATGAAATTTCAGTGGATCCGGGTGAAACGCACCCATGTGCCCAAGGGTTGGATCAAGGGCAATGCCAATGACA
TCGGCATGGATTATGATTATGCCCTCCTGGAACTCAAAAAGCCCCACAAGAGAAAATTTATGAAGATTGGGGTGA
GCCCTCCTGCTAAGCAGCTGCCAGGGGGCAGAATTCACTTCTCTGGTTATGACAATGACCGACCAGGCAATTTGG
TGTATCGCTTCTGTGACGTCAAAGACGAGACCTATGACTTGCTCTACCAGCAATGCGATGCCCAGCCAGGGGCCA
GCGGGTCTGGGGTCTATGTGAGGATGTGGAAGAGACAGCAGCAGAAGTGGGAGCGAAAAATTATTGGCATTTTTT
CAGGGCACCAGTGGGTGGACATGAATGGTTCCCCACAGGATTTCAACGTGGCTGTCAGAATCACTCCTCTCAAAT
ATGCCCAGATTTGCTATTGGATTAAAGGAAACTACCTGGATTGTAGGGAGGGG**TGA**CACAGTGTTCCCTCCTGGC
AGCAATTAAGGGTCTTCATGTTCTTATTTTAGGAGAGGCCAAATTGTTTTTTGTCATTGGCGTGCACACGTGTGT
GTGTGTGTGTGTGTGTGTAAGGTGTCTTATAATCTTTTACCTATTTCTTACAATTGCAAGATGACTGGCTTTA
CTATTTGAAAACTGGTTTGTGTATCATATCATATATCATTTAAGCAGTTTGAAGGCATACTTTTGCATAGAAATA
AAAAAAATACTGATTTGGGGCAATGAGGAATATTTGACAATTAAGTTAATCTTCACGTTTTTGCAAACTTTGATT
TTTATTTCATCTGAACTTGTTTCAAAGATTTATATTAAATATTTGGCATACAAGAGATATGA

FIGURE 211

MAGIPGLLFLLFFLLCAVGQVSPYSAPWKPTWPAYRLPVVLPQSTLNLAKPDFGAEAKLEVSSSCGPQCHKGTPL
PTYEEAKQYLSYETLYANGSRTETQVGIYILSSSGDGAQHRDSGSSGKSRRKRQIYGYDSRFSIFGKDFLLNYPF
STSVKLSTGCTGTLVAEKHVLTAAHCIHDGKTYVKGTQKLRVGFLKPKFKDGGRGANDSTSAMPEQMKFQWIRVK
RTHVPKGWIKGNANDIGMDYDYALLELKKPHKRKFMKIGVSPPAKQLPGGRIHFSGYDNDRPGNLVYRFCDVKDE
TYDLLYQQCDAQPGASGSGVYVRMWKRQQQKWERKIIGIFSGHQWVDMNGSPQDFNVAVRITPLKYAQICYWIKG
NYLDCREG

FIGURE 212A

GGGACCGACGACACGCCCCCCTCTCCTCCTTTGTTCCGGGGGTCGGCGGCCGCTCTCCTGCCAGAGCTCGGGATC
TCGGCCCCGGGAGGCGGGCGCTCGGGCGCAGCCGCGAAG**ATG**CCGTTGGAACTGACGCAGAGCCGAGTGCAGAAG
ATCTGGGTGCCCGTGGACCACAGGCCCTCGTTGCCCAGATCCTGTGGGCCAAAGCTGACCAACTCCCCCACCGTC
ATCGTCATGGTGGGCCTCCCCGCCCGGGGCAAGACCTACATCTCCAAGAAGCTGACTCGCTACCTCAACTGGATT
GGCGTCCCCACAAAAGTGTTCAACGTCGGGGAGTATCGCCGGGAGGCTGTGAAGCAGTACAGCTCCTACAACTTC
TTCCGCCCCGACAATGAGGAAGCCATGAAAGTCCGGAAGCAATGTGCCTTAGCTGCCTTGAGAGATGTCAAAAGC
TACCTGGCGAAAGAAGGGGGACAAATTGCGGTTTTCGATGCCACCAATACTACTAGAGAGGAGACACATGATC
CTTCATTTTGCCAAAGAAAATGACTTTAAAGCGTTTTTCATCGAGTCGGTGTGCGACGACCCTACAGTTGTGGCC
TCCAATATCATGGAAGTTAAAATCTCCAGCCCGGATTACAAAGACTGCAACTCGGCAGAAGCCATGGACGACTTC
ATGAAGAGGATCAGTTGCTATGAAGCCAGCTACCAGCCCCTCGACCCCGACAAATGCGACAGGGACTTGTCGCTG
ATCAAGGTGATTGACGTGGGCCGGAGGTTCCTGGTGAACCGGGTGCAGGACCACATCCAGAGCCGCATCGTGTAC
TACCTGATGAACATCCACGTGCAGCCGCGTACCATCTACCTGTGCCGGCACGGCGAGAACGAGCACAACCTCCAG
GGCCGCATCGGGGGCGACTCAGGCCTGTCCAGCCGGGGCAAGAAGTTTGCCAGTGCTCTGAGCAAGTTCGTGGAG
GAGCAGAACCTGAAGGACCTGCGCGTGTGGACCAGCCAGCTGAAGAGCACCATCCAGACGGCCGAGGCGCTGCGG
CTGCCCTACGAGCAGTGGAAGGCGCTCAATGAGATCGACGCGGGCGTCTGTGAGGAGCTGACCTACGAGGAGATC
AGGGACACCTACCCTGAGGAGTATGCGCTGCGGGAGCAGGACAAGTACTATTACCGCTACCCCACCGGGGAGTCC
TACCAGGACCTGGTCCAGCGCTTGGAGCCAGTGATCATGGAGCTGGAGCGGCAGGAGAATGTGCTGGTCATCTGC
CACCAGGCCGTCCTGCGCTGCCTGCTTGCCTACTTCCTGGATAAGAGTGCAGAGGAGATGCCCTACCTGAAATGC
CCTCTTCACACCGTCCTGAAACTGACGCCTGTCGCTTATGGCTGCCGTGTGGAATCCATCTACCTGAACGTGGAG
TCCGTCTGCACACACCGGGAGAGGTCAGAGGATGCAAAGAAGGGACCTAACCCGCTCATGAGACGCAATAGTGTC
ACCCCGCTAGCCAGCCCCGAACCCACCAAAAAGCCTCGCATCAACAGCTTTGAGGAGCATGTGGCCTCCACCTCG
GCCGCCCTGCCCAGCTGCCTGCCCCCGGAGGTGCCCACGCAGCTGCCTGGACAAAACATGAAAGGCTCCCGGAGC
AGCGCTGACTCCTCCAGGAAACAC**TGA**GGCAGACGTGTCGGTTCCATTCCATTTCCATTTCTGCAGCTTAGCTTG
TGTCCTGCCCTCCGCCCGAGGCAAAACGTATCCTGAGGACTTCTTCCGGAGAGGGTGGGGTGGAGCAGCGGGGGA
GCCTTGGCCGAAGAGAACCATGCTTGGCACCGTCTGTGTCCCCTCGGCCGCTGGACACCAGAAAGCCACGTGGGT
CCCTGGCGCCTGCCTTTAGCCTGGGGGCCCCCACCTCCACTCTCTGGGTTCCTAGGAATGTCCAGCCTCGGAGAC
CTTCACAAAGCCTTGGGAGGGTGATGAGTGCTGGTCCTGACAAGAGGCCGCTGGGGACACTGTCCGTTTTGTTTC
GTTTCTGTGATCTCCCGGCACGTTTGGAGCTGGGAAGACCACACTGGTGGCAGAATCCTAAAATTAAAGGAGGCA
GCCTCCTAGTTGCTGAAAGTTAAGGAATGTGTAAAACCTCCACGTGACTGTTTGGTGCATCTTGACCTGGGAAGA
CGCCTCATGGGAACGAACTTGGACAGGTGTTGGGTTGACCCCTCTTCTGCAGGAAGTCCCTGAGCTGAGACGCAA
AGTTGGCTGGGTGGTGGTCGGCACCCTGGCTCCTGCAGGTCCACACACCTTCCAGGCCTGTGGCCTGCCTCCAAA
GATGTGCAAGGGCAGGCTGGCTGCACGGGGAGAGGGAAGTATTTTGCCGAAATATGAGAACTGGGGCCTCCTGCT
CCCAGGGAGCTCCAGGGCCCCTCTCTCCTCCCACCTGGACTTGGGGGGAACTGAGAAACACTTTCCTGGAGCTGC
TGGCTTTTGCACTTTTTTGATGGCAGAAGTGTGACCTGAGAGTCCCACCTTCTCTTCAGGAACGTAGATGTCGGG
GTGTCTTGCCCTGGGGGGCTTGGAACCTCTGAAGGTGGGGAGCGGAACACCTGGCATCCTTCCCCAGCACTTGCA
TTACGGTCCCTGCTCTTCCAAGGTGGGGACAGTGGCCCAAGCAAGGCCTCACACGCAGCCACTTCTTCAAGAGCT
GCCTGCACACTGTCTTGGAGCATCTGCCTTGTGCCTGGCACTCTGCCGGTGCCTTGGGAAGGTCGGTAAGAGTGG
ACTTTGTCCTGGGCTTCCCTTCATGGCGTCTAGACACTTTTGTGGTGATGGAAAGCATGGGACCTGTCGTCTCAG
CCTGTTGGTTTCTCCTCATTGCCTCAAACCCTGGGGTAGGTGGAACGGGGGGTCTCGTGCCCAGATGAAACCATT
TGGAAACTCGGCAGCAGAGTTTGTCCAAATGACCCTTTTCAGGATGTCTCAAAGCTTGTGCCAAAGGTCACTTTT
CTTTCCTGCCTTCTGCTGTGAGCCCTGAGATCCTCCTCCCAGCTCAAGGGACAGGTCCTGGGTGAGGGTGGGAGA
TTTAGACACCTGAAACTGGGCGTGGAGAGAAGAGCCGTTGCTGTTTGTTTTTGGGAAGAGCTTTTAAAGAATGC
ATATTTTTTTACCTGGTTGGAATTGAGTAGGAACTGAGGCTGTGCTTCAGGTATGGTACAATCAAGTGGGGGATT
TTCATGCTGAACCCATTCAAAGCCCTCCCCGTCCCCGCATTTCCAGGCCACCCTTTGGCTGGCGTCTGCTGGAGA
GGATGTCTCTGTCGCATTCCCGTGCAGCTCAGCTCGCGCAGGTTTTCTCTCTCCCTGGATGTTGAGCTCTCAT
CAGAATATGTGGGTGGGGGGTGGACGTGCACGGGTGCATGATTGTGCTTAACTTGGTTGTATTTTTCGATTTGAC
ATGGAAGCCTGTTGCTTTGCTCTAGAGAATAGTTTCTCGTGTCCCCTTCGCACGCCTCATTCTTTGAACCTCATC
TCTGATGTTTGATACAGATGGGGGGCTTGATAGCTGTGGTCCCCTTTCCCTTCTGACTACGTGAAAATCAATACCT

FIGURE 212B

AAATACAGAAGCCTTGGTCTAAACACCGAGACTTTTAGTTTGCGAAGGGGCTTAGATAGGGAGAGAGGTAACATG
AATCTGGACAGGGGAGGGAGATACTATAGAAAGGAGAACACTGCATACTTTGCAAAGCCAGTGACCTCCTTTTGA
AGGGGACATTGGACGGGGGCCGGGGGCGGGGGTTCGGTTTGACTACCGTCATGAACTTTTGGCGTATACTGATTC
CTCCAACTCTCCACCCCACAAAATAACGGGGACCAATATTTTTAACTTTGCCTATTGTTTTTGGGTGAGTTTCC
CCCCTCCATTATTCTGTCCTGAGACCACGGGCAAAGCTCTTCCATTTTGAGAGAGAAGAAAAACTGTTTGGAACC
ACACCAATGATATTTTTCTTTGTAATACTTGAAATTTATTTTTTTATTATTTTGATAGCAGATGTGCTATTTATT
TATTTAATATATGTATAAGGAGTCCTAAACAATAGAAAGCTGTAGAAGCTGTAGAGATAGGCTTCAGTTGTTAAT
TGGTTTGGAGCCTCCTATGTGTGACTTATGACTCTCTGTGTTCTGTGTATTTGTCTGAATTAATGACCTGGGATA
TAAAGCTATGCTAGCTTTCAAACAGGAGATGCCTTCAGAAAGCTTTGTATATTTTGCAGTTGCCAGACCAATAAA
ATACCTGGTTGAAATACATGGACGAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 213

MPLELTQSRVQKIWVPVDHRPSLPRSCGPKLTNSPTVIVMVGLPARGKTYISKKLTRYLNWIGVPTKVFNVGEYR
REAVKQYSSYNFFRPDNEEAMKVRKQCALAALRDVKSYLAKEGGQIAVFDATNTTRERRHMILHFAKENDFKAFF
IESVCDDPTVVASNIMEVKISSPDYKDCNSAEAMDDFMKRISCYEASYQPLDPDKCDRDLSLIKVIDVGRRFLVN
RVQDHIQSRIVYYLMNIHVQPRTIYLCRHGENEHNLQGRIGGDSGLSSRGKKFASALSKFVEEQNLKDLRVWTSQ
LKSTIQTAEALRLPYEQWKALNEIDAGVCEELTYEEIRDTYPEEYALREQDKYYYRYPTGESYQDLVQRLEPVIM
ELERQENVLVICHQAVLRCLLAYFLDKSAEEMPYLKCPLHTVLKLTPVAYGCRVESIYLNVESVCTHRERSEDAK
KGPNPLMRRNSVTPLASPEPTKKPRINSFEEHVASTSAALPSCLPPEVPTQLPGQNMKGSRSSADSSRKH

FIGURE 214

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GCGCCGCGGCGCGGAGTCCCGGCTGCGGGATAGACCGAGGGCCATGGCCGCCTCTCCCGGACCCGCCGGCGTTGG
CGGCGCCGGAGCAGTCTACGGCTCCGGCTCTTCGGGCTTCGCCCTCGACTCGGGACTGGAGATCAAAACTCGCTC
GGTGGAGCAGACGCTACTCCCGCTGGTTTCTCAGATCACCACGCTTATTAATCATAAAGATAATACCAAAAAGTC
TGATAAAACTCTGCAAGCAATTCAGCGTGTAGGACAAGCTGTCAACTTGGCAGTTGGAAGATTTGTTAAAGTAGG
AGAAGCTATAGCCAATGAAAACTGGGATTTGAAAGAAGAAATAAATATTGCTTGTATTGAAGCTAAACAAGCAGG
AGAAACAATTGCAGCACTTACAGACATAACCAACTTGAACCATCTGGAATCTGATGGGCAGATCACAATTTTTAC
AGACAAAACAGGAGTGATAAAGGCTGCAAGATTACTTCTTTCTTCAGTGACAAAAGTGTTGTTGCTGGCAGACCG
AGTAGTCATTAAACAGATAATAACATCAAGAAATAAGGTTCTCGCAACTATGGAAAGACTAGAGAAAGTGAATAG
CTTTCAAGAGTTTGTCCAAATATTCAGTCAATTTGGAAATGAAATGGTGGAGTTTGCACATCTGAGTGGAGATAG
ACAAAATGATTTGAAAGATGAAAAGAAAAAGGCAAAAATGGCAGCAGCTAGGGCAGTTCTTGAAAAGTGTACAAT
GATGCTTCTCACAGCTTCAAAGACATGTCTGAGGCATCCTAACTGCGAATCAGCCCATAAAAACAAAGAAGGAGT
ATTTGACCGTATGAAAGTGGCATTGGATAAGGTCATTGAAATTGTGACTGACTGTAAACCGAATGGAGAGACTGA
CATTTCATCTATCAGTATTTTTACTGGAATTAAGGAATTCAAGATGAATATTGAAGCTCTTCGGGAGAATCTTTA
TTTTCAGTCCAAAGAGAACCTTTCTGTGACATTGGAAGTCATCTTGGAGCGTATGGAGGACTTTACTGATTCTGC
CTACACCAGCCATGAGCACAGAGAACGCATCTTGGAACTGTCAACTCAGGCGAGAATGGAACTGCAGCAGTTAAT
TTCTGTGTGGATTCAAGCTCAAAGCAAGAAAACAAAAAGCATCGCTGAAGAACTGGAACTCAGTATTTTGAAAAT
CAGTCACAGTCTTAATGAACTTAAGAAAGAACTTCATAGTACAGCGACACAGCTGGCAGCAGATCTATTAAAATA
CCATGCTGATCATGTGGTTCTAAAAGCATTAAAACTTACTGGAGTAGAAGGAAATTTAGAAGCTTTGGCTGAATA
TGCCTGTAAACTCTCTGAACAGAAAGAGCAGCTTGTTGAGACCTGTCGATTGTTACGACACATATCTGGGACAGA
ACCTCTGGAAATAACCTGTATACATGCAGAGGAGACATTTCAGGTGACTGGCCAACAGATAATTTCTGCTGCTGA
AACATTGACATTGCATCCATCTAGTAAAATTGCTAAAGAAACCTAGATGTATTTGTGAAGCTTGGGAATCCCA
AATTAGTGACATGTCAACACTGCTGAGAGAAATCAATGACGTGTTTGAAGGAAGACGAGGAGAGAAGTATGGCTA
CCTTTCACTTCCAAAGCCAATGAAGAATAATGCAAACCTGAAATCATTAAAGCCAGACAAGCCTGACTCTGAGGA
GCAAGCCAGATAGCAAAGCTTGGACTTAAGCTGGGTTTGCTCACCTCTGACGCTGACTGCGAAATTGAGAAGTG
GGAAGATCAGGAGAATGAGATTGTTCAATATGGACGGAACATGTCCAGTATGGCCTATTCTCTGTATTTATTTAC
TAGAGGAGAGGGGCCACTGAAAACTTCCCAGGATTTAATTCATCAACTAGAGGTTTTTGCTGCAGAGGGTTTAAA
GCTTACTTCCAGTGTTCAAGCTTTTTCAAAACAGCTGAAAGACGATGACAAGCTTATGCTTCTCCTGGAAATAAA
CAAGCTAATTCCTCTATGCCACCAGCTCCAGACAGTAACTAAGACTTCTTTGCAGAATAAAGTATTTCTAAAGGT
TGACAAGTGTATTACGAAGACAAGATCCATGATGGCTCTCTTAGTCCAACTTCTTTCACTTTGTTATAAACTGCT
GAAGAAGCTTCAGATGGAAAATAACGGATGGGTCTCAGTTACAAATAAGGACACTATGGATAGTAAAACTTGAGA
AGCTTTTGGGGTCAGATCTCTGGAACATCATGTGATGAAGCTGACATTTTTAAAAATCAAATGATCCTTTATCTT
TTCAGAAATTCATCAATTTTATAAAGAAAACAATATTGAAATTTTGCTCTATTTTCTGATCATGAAACTGATTGT
AAAGCTTTTTGACAACTAATAAATGTCTTGGTAATTGCTAGATTCT
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FIGURE 215

MAASPGPAGVGGAGAVYGSGSSGFALDSGLEIKTRSVEQTLLPLVSQITTLINHKDNTKKSDKTLQAIQRVGQAV
NLAVGRFVKVGEAIANENWDLKEEINIACIEAKQAGETIAALTDITNLNHLESDGQITIFTDKTGVIKAARLLLS
SVTKVLLLADRVVIKQIITSRNKVLATMERLEKVNSFQEFVQIFSQFGNEMVEFAHLSGDRQNDLKDEKKKAKMA
AARAVLEKCTMMLLTASKTCLRHPNCESAHKNKEGVFDRMKVALDKVIEIVTDCKPNGETDISSISIFTGIKEFK
MNIEALRENLYFQSKENLSVTLEVILERMEDFTDSAYTSHEHRERILELSTQARMELQQLISVWIQAQSKKTKSI
AEELELSILKISHSLNELKKELHSTATQLAADLLKYHADHVVLKALKLTGVEGNLEALAEYACKLSEQKEQLVET
CRLLRHISGTEPLEITCIHAEETFQVTGQQIISAAETLTLHPSSKIAKENLDVFCEAWESQISDMSTLLREINDV
FEGRRGEKYGYLSLPKPMKNNANLKSLKPDKPDSEEQAKIAKLGLKLGLLTSDADCEIEKWEDQENEIVQYGRNM
SSMAYSLYLFTRGEGPLKTSQDLIHQLEVFAAEGLKLTSSVQAFSKQLKDDDKLMLLLEINKLIPLCHQLQTVTK
TSLQNKVFLKVDKCITKTRSMMALLVQLLSLCYKLLKKLQMENNGWVSVTNKDTMDSKT

FIGURE 216

CGAGGTTCGGGTCGTGGGGCGGAGGGAAGAGCGGGCGGGCGGGAGGCGCCGGCGCCAGACGCGGAGGGAAGGAGC
TACGAGTAGCCGCCGAGAGGCCGCGGAGCCAGCGACGACCGACCCAGCCGAGCCGCCGCCGCCGCCGCGCCCCC**A**
TGGCGGCCGCCAAGGACACTCATGAGGACCATGATACTTCCACTGAGAATACAGACGAGTCCAACCATGACCCTC
AGTTTGAGCCAATAGTTTCTCTTCCTGAGCAAGAAATTAAAACACTGGAAGAAGATGAAGAGGAACTTTTTAAAA
TGCGGGCAAAACTGTTCCGATTTGCCTCTGAGAACGATCTCCCAGAATGGAAGGAGCGAGGCACTGGTGACGTCA
AGCTCCTGAAGCACAAGGAGAAAGGGGCCATCCGCCTCCTCATGCGGAGGGACAAGACCCTGAAGATCTGTGCCA
ACCACTACATCACGCCGATGATGGAGCTGAAGCCCAACGCAGGTAGCGACCGTGCCTGGGTCTGGAACACCCACG
CTGACTTCGCCGACGAGTGCCCCAAGCCAGAGCTGCTGGCCATCCGCTTCCTGAATGCTGAGAATGCACAGAAAT
TCAAAACAAAGTTTGAAGAATGCAGGAAAGAGATCGAAGAGAGAGAAAAGAAAGCAGGATCAGGCAAAAATGATC
ATGCCGAAAAAGTGGCGGAAAAGCTAGAAGCTCTCTCGGTGAAGGAGGAGACCAAGGAGGATGCTGAGGAGAAGC
AA**TAA**ATCGTCTTATTTTATTTTCTTTTCCTCTCTTTCCTTTCCTTTTTTTAAAAAATTTTACCCTGCCCCTCTT
TTTCGGTTTGTTTTTATTCTTTCATTTTTACAAGGGACGTTATATAAAGAACTGAACTC

FIGURE 217

MAAAKDTHEDHDTSTENTDESNHDPQFEPIVSLPEQEIKTLEEDEEELFKMRAKLFRFASENDLPEWKERGTGDV
KLLKHKEKGAIRLLMRRDKTLKICANHYITPMMELKPNAGSDRAWVWNTHADFADECPKPELLAIRFLNAENAQK
FKTKFEECRKEIEEREKKAGSGKNDHAEKVAEKLEALSVKEETKEDAEEKQ

FIGURE 218A

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GTGGGGTGGGGTGGGGCTGGGGGCTTGTCGCCCTTTCAGGCTCCACCCTTTGCGGAGATTATAAATAGTCATGAT
CCCAGCGAGACCCAGAGATGCCTGTAATGGTGAGACTTTGGATCCTTCCTGAGGACGTGGAGAAAACTTTCTGCT
GAGAAGGACATTTTGAAGGTTTTGTTGGCTGAAAAAGCTGTTTCTGGAATCACCCCTAGATCTTTCTTGAAGACT
TGAATTAGATTACAGCGATGGGGACACAGAAGGTCACCCCAGCTCTGATATTTGCCATCACAGTTGCTACAATCG
GCTCTTTCCAATTTGGCTACAACACTGGGGTCATCAATGCTCCTGAGAAGATCATAAAGGAATTTATCAATAAAA
CTTTGACGGACAAGGGAAATGCCCCACCCTCTGAGGTGCTGCTCACGTCTCTCTGGTCCTTGTCTGTGGCCATAT
TTTCCGTCGGGGGTATGATCGGCTCCTTTTCCGTCGGACTCTTCGTCAACCGCTTTGGCAGGCGCAATTCAATGC
TGATTGTCAACCTGTTGGCTGTCACTGGTGGCTGCTTTATGGGACTGTGTAAAGTAGCTAAGTCGGTTGAAATGC
TGATCCTGGGTCGCTTGGTTATTGGCCTCTTCTGCGGACTCTGCACAGGTTTTGTGCCCATGTACATTGGAGAGA
TCTCGCCTACTGCCCTGCGGGGTGCCTTTGGCACTCTCAACCAGCTGGGCATCGTTGTTGGAATTCTGGTGGCCC
AGATCTTTGGTCTGGAATTCATCCTTGGGTCTGAAGAGCTATGGCCGCTGCTACTGGGTTTTACCATCCTTCCTG
CTATCCTACAAAGTGCAGCCCTTCCATTTTGCCCTGAAAGTCCCAGATTTTTGCTCATTAACAGAAAAGAAGAGG
AGAATGCTAAGCAGATCCTCCAGCGGTTGTGGGGCACCCAGGATGTATCCCAAGACATCCAGGAGATGAAAGATG
AGAGTGCAAGGATGTCACAAGAAAAGCAAGTCACCGTGCTAGAGCTCTTTAGAGTGTCCAGCTACCGACAGCCCA
TCATCATTTCCATTGTGCTCCAGCTCTCTCAGCAGCTCTCTGGGATCAATGCTGTGTTCTATTACTCAACAGGAA
TCTTCAAGGATGCAGGTGTTCAAGAGCCCATCTATGCCACCATCGGCGCGGGTGTGGTTAATACTATCTTCACTG
TAGTTTCTCTATTTCTGGTGGAAAGGGCAGGAAGAAGGACTCTGCATATGATAGGCCTTGGAGGGATGGCTTTTT
GTTCCACGCTCATGACTGTTTCTTTGTTATTAAAGGATAACTATAATGGGATGAGCTTTGTCTGTATTGGGGCTA
TCTTGGTCTTTGTAGCCTTCTTTGAAATTGGACCAGGCCCCATTCCCTGGTTTATTGTGGCCGAACTCTTCAGCC
AGGGCCCCCGCCCAGCTGCGATGGCAGTGGCCGGCTGCTCCAACTGGACCTCCAACTTCCTAGTCGGATTGCTCT
TCCCCTCCGCTGCTCACTATTTAGGAGCCTACGTTTTTATTATCTTCACCGGCTTCCTCATTACCTTCTTGGCTT
TTACCTTCTTCAAAGTCCCTGAGACCCGTGGCAGGACTTTTGAGGATATCACACGGGCCTTTGAAGGGCAGGCAC
ACGGTGCAGATAGATCTGGAAAGGACGGCGTCATGGAGATGAACAGCATCGAGCCTGCTAAGGAGACCACCACCA
ATGTCTAAGTCGTGCCTCCTTCCACCTCCCTCCCGGCATGGGAAAGCCACCTCTCCCTCAACAAGGGAGAGACCT
CATCAGGATGAACCCAGGACGCTTCTGAATGCTGCTACTTAATTCCTTTCTCATCCCACGCACTCCATGAGCACC
CCAAGGCTGCGGTTTGTTGGATCTTCAATGGCTTTTTAAATTTTATTTCCTGGACATCCTCTTCTGCTTAGGAGA
GACCGAGTGAACCTACCTTCATTTCAGGAGGGATTGGCCGCTTGGCACATGACAACTTTGCCAGCTTTTCCTCCC
TTGGGTTCTGATATTGCCGCACTAGGGGATATAGGAGAGGAAAAGTAAGGTGCAGTTCCCCCAACCTCAGACTTA
CCAGGAAGCAGATACATATGAGTGTGGAAGCCGGAGGGTGTTTATGTAAGAGCACCTTCCTCACTTCCATACAGC
TCTACGTGGCAAATTAACTTGAGTTTTATTTATTTTATCCTCTGGTTTAATTACATAATTTTTTTTTTTTTACTT
TAAGTTTCAGGATACATGTGCCGAATGTGCAGGTTTGTTACATAGGTATATATATGCCATGATGGAAATATTTAT
TTTTTTAAGCGTAATTTTGCCAAATAATAAAAACAGAAGGAAATTGAGATTAGAGGGAGGTGTTTAAAGAGAGGT
TATAGAGTAGAAGATTTGATGCTGGAGAGGTTAAGGTGCAATAAGAATTTAGGGAGAAATGTTGTTCATTATTGG
AGGGTAAATGATGTGGTGCCTGAGGTCTGTACGTTACCTCTTAACAATTTCTGTCCTTCAGATGGAAACTCTTTA
ACTTCTCGTAAAAGTCATATACCTATATAATAAAGCTACTGATTTCCTTGGAGCTTTTTTCTTTAAGATAATAGT
TTACATGTAGTAGTACTTGAAATCTAGGATTATTAACTAATATGGGCATTGTAGTTAATGATGGTTGATGGGTTC
TAATTTTGGATGGAGTCCAGGGAAGAGAAAGTGATTTCTAGAAAGCCTGTTCCCCTCACTGGATGAAATAACTCC
TTCTTGTAGTAGTCTCATTACTTTTGAAGTAATCCCGCCACCTATCTCGTGGGAGAGCCATCCAAATAAGAAACC
TAAAATAATTGGTTCTTGGTAGAGATTCATTATTTTTCCACTTTGTTCTTTAGGAGATTTTAGGTGTTGATTTTC
TGTTGTATTTTAACTCATACCTTTAAAGGAATTCCCCAAAGAATGTTTATAGCAAACTTGGAATTTGTAACCTCA
GCTCTGGGAGAGGATTTTTTTCTGAGCGATTATTATCTAAAGTGTGTTGTTGCTTTAGGCTCACGGCACGCTTGC
GTATGTCTGTTACCATGTCACTGTGGTCCTATGCCGAATGCCCTCAGGGGACTTGAATCTTTCCAATAAACCAGG
TTTAGACAGTATGAGTCAATGTGCAGTGTAGCCCACACTTGAGAGGATGAATGTATGTGCACTGTCACTTTGCTC
TGGGTGGAAGTACGTTATTGTTGACTTATTTTCTCTGTGTTTGTTCCTACAGCCCCTTTTTCATATGTTGCTCAG
TCTCCCTTTCCCTTCTTGGTGCTTACACATCTCAGACCCTTTAGCCAAACCCTTGTCAGTGACAGTATTTTGGTT
CTTAGTTCTCACTGTTCCCTCTGCTCCTGGAGCCTTTGAATAAAAATGCACGTAGCTGAGGCCGGATGCGGTGGC
TCACGCCTGTAATCCCAGCACTTTGGGAGGCCTAGGCGGGCGGTCAGGGGTTCGAGACCAGTCTGGCCAACATCG
TGAAACCCTGTCTCTACTAAAAATGCAAAAATTAGCCGGGCGTGGTGGCGGGCGCCTGTAATCCCAGCTACTTGG
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FIGURE 218B

GAAGCTGAGGCGGGAGAATCATGTGAACCCGGGACGCAGGGGTTGCAGTGAGCGGAGATCGCATCATTGCACTCT
AGCCTGGGCCACAGGGCGAGACTCCGTCTCAAAAAAAAAAAAATGCACATAGCTATCGAGTGTGCTTTAGCTTGA
AAAGGTGACCTTGCAACTTCATGTCAACTTTCTGGCTCCTCAAACAGTAGGTTGGCAGTAAGGCAGGGTCCCATT
TCTCACTGAGAAGATTGTGAATATTTCCATATGGATTTTCTATTGTTACTCTGGTTCTTTGTTTTAAAATAAAAA
TTCTGAATGTACACG

FIGURE 219

MGTQKVTPALIFAITVATIGSFQFGYNTGVINAPEKIIKEFINKTLTDKGNAPPSEVLLTSLWSLSVAIFSVGGM
IGSFSVGLFVNRFGRRNSMLIVNLLAVTGGCFMGLCKVAKSVEMLILGRLVIGLFCGLCTGFVPMYIGEISPTAL
RGAFGTLNQLGIVVGILVAQIFGLEFILGSEELWPLLLGFTILPAILQSAALPFCPESPRFLLINRKEEENAKQI
LQRLWGTQDVSQDIQEMKDESARMSQEKQVTVLELFRVSSYRQPIIISIVLQLSQQLSGINAVFYYSTGIFKDAG
VQEPIYATIGAGVVNTIFTVVSLFLVERAGRRTLHMIGLGGMAFCSTLMTVSLLLKDNYNGMSFVCIGAILVFVA
FFEIGPGPIPWFIVAELFSQGPRPAAMAVAGCSNWTSNFLVGLLFPSAAHYLGAYVFIIFTGFLITFLAFTFFKV
PETRGRTFEDITRAFEGQAHGADRSGKDGVMEMNSIEPAKETTTNV

FIGURE 220A

GTGGGGTGGGGTGGGGCTGGGGGCTTGTCGCCCTTTCAGGCTCCACCCTTTGCGGAGATTATAAATAGTCATGAT
CCCAGCGAGACCCAGAGATGCCTGTAATGGTGAGACTTTGGATCCTTCCTGAGGACGTGGAGAAAACTTTCTGCT
GAGAAGGACATTTTGAAGGTTTTGTTGGCTGAAAAAGCTGTTTCTGGAATCACCCCTAGATCTTTCTTGAAGACT
TGAATTAGATTACAGCG**ATG**GGGACACAGAAGGTCACCCCAGCTCTGATATTTGCCATCACAGTTGCTACAATCG
GCTCTTTCCAATTTGGCTACAACACTGGGGTCATCAATGCTCCTGAGAAGATCATAAAGGAATTTATCAATAAAA
CTTTGACGGACAAGGGAAATGCCCCACCCTCTGAGGTGCTGCTCACGTCTCTCTGGTCCTTGTCTGTGGCCATAT
TTTCCGTCGGGGGTATGATCGGCTCCTTTTCCGTCGGACTCTTCGTCAACCGCTTTGGCAGGCGCAATTCAATGC
TGATTGTCAACCTGTTGGCTGTCACTGGTGGCTGCTTTATGGGACTGTGTAAAGTAGCTAAGTCGGTTGAAATGC
TGATCCTGGGTCGCTTGGTTATTGGCCTCTTCTGCGGACTCTGCACAGGTTTTGTGCCCATGTACATTGGAGAGA
TCTCGCCTACTGCCCTGCGGGGTGCCTTTGGCACTCTCAACCAGCTGGGCATCGTTGTTGGAATTCTGGTGGCCC
AGATCTTTGGTCTGGAATTCATCCTTGGGTCTGAAGAGCTATGGCCGCTGCTACTGGGTTTTACCATCCTTCCTG
CTATCCTACAAAGTGCAGCCCTTCCATTTTGCCCTGAAAGTCCCAGATTTTTGCTCATTAACAGAAAAGAAGAGG
AGAATGCTAAGCAGATCCTCCAGCGGTTGTGGGGCACCCAGGATGTATCCCAAGACATCCAGGAGATGAAAGATG
AGAGTGCAAGGATGTCACAAGAAAGCAAGTCACCGTGCTAGAGCTCTTTAGAGTGTCCAGCTACCGACAGCCCA
TCATCATTTCCATTGTGCTCCAGCTCTCTCAGCAGCTCTCTGGGATCAATGCTGTGTTCTATTACTCAACAGGAA
TCTTCAAGGATGCAGGTGTTCAAGAGCCCATCTATGCCACCATCGGCGCGGGTGTGGTTAATACTATCTTCACTG
TAGTTTCTCTATTTCTGGTGGAAAGGGCAGGAAGAAGGACTCTGCATATGATAGGCCTTGGAGGGATGGCTTTTT
GTTCCACGCTCATGACTGTTTCTTTGTTATTAAAGGATAACTATAATGGGATGAGCTTTGTCTGTATTGGGGCTA
TCTTGGTCTTTGTAGCCTTCTTTGAAATTGGACCAGGCCCCATTCCCTGGTTTATTGTGGCCGAACTCTTCAGCC
AGGGCCCCCGCCCAGCTGCGATGGCAGTGGCCGGCTGCTCCAACTGGACCTCCAACTTCCTAGTCGGATTGCTCT
TCCCCTCCGCTGCTCACTATTTAGGAGCCTACGTTTTTATTATCTTCACCGGCTTCCTCATTACCTTCTTGGCTT
TTACCTTCTTCAAAGTCCCTGAGACCCGTGGCAGGACTTTTGAGGATATCACACGGGCCTTTGAAGGGCAGGCAC
ACGGTGCAGATAGATCTGGAAAGGACGGCGTCATGGAGATGAACAGCATCGAGCCTGCTAAGGAGACCACCACCA
ATGTC**TAA**GTCGTGCCTCCTTCCACCTCCCTCCCGGCATGGGAAAGCCACCTCTCCCTCAACAAGGGAGAGACCT
CATCAGGATGAACCCAGGACGCTTCTGAATGCTGCTACTTAATTCCTTTCTCATCCCACGCACTCCATGAGCACC
CCAAGGCTGCGGTTTGTTGGATCTTCAATGGCTTTTTAAATTTTATTTCCTGGACATCCTCTTCTGCTTAGGAGA
GACCGAGTGAACCTACCTTCATTTCAGGAGGGATTGGCCGCTTGGCACATGACAACTTTGCCAGCTTTTCCTCCC
TTGGGTTCTGATATTGCCGCACTAGGGGATATAGGAGAGGAAAAGTAAGGTGCAGTTCCCCCAACCTCAGACTTA
CCAGGAAGCAGATACATATGAGTGTGGAAGCCGGAGGGTGTTTATGTAAGAGCACCTTCCTCACTTCCATACAGC
TCTACGTGGCAAATTAACTTGAGTTTTATTTATTTTATCCTCTGGTTTAATTACATAATTTTTTTTTTTTACTT
TAAGTTTCAGGATACATGTGCCGAATGTGCAGGTTTGTTACATAGGTATATATATGCCATGATGGAAATATTTAT
TTTTTTAAGCGTAATTTTGCCAAATAATAAAAACAGAAGGAAATTGAGATTAGAGGGAGGTGTTTAAAGAGAGGT
TATAGAGTAGAAGATTTGATGCTGGAGAGGTTAAGGTGCAATAAGAATTTAGGGAGAAATGTTGTTCATTATTGG
AGGGTAAATGATGTGGTGCCTGAGGTCTGTACGTTACCTCTTAACAATTTCTGTCCTTCAGATGGAAACTCTTTA
ACTTCTCGTAAAAGTCATATACCTATATAATAAAGCTACTGATTCCTTGGAGCTTTTTTCTTTAAGATAATAGT
TTACATGTAGTAGTACTTGAAATCTAGGATTATTAACTAATATGGGCATTGTAGTTAATGATGGTTGATGGGTTC
TAATTTTGGATGGAGTCCAGGGAAGAGAAAGTGATTTCTAGAAAGCCTGTTCCCCTCACTGGATGAAATAACTCC
TTCTTGTAGTAGTCTCATTACTTTTGAAGTAATCCCGCCACCTATCTCGTGGGAGAGCCATCCAAATAAGAAACC
TAAAATAATTGGTTCTTGGTAGAGATTCATTATTTTTCCACTTTGTTCTTTAGGAGATTTTAGGTGTTGATTTTC
TGTTGTATTTTAACTCATACCTTTAAAGGAATTCCCCAAAGAATGTTTATAGCAAACTTGGAATTTGTAACCTCA
GCTCTGGGAGAGGATTTTTTTCTGAGCGATTATTATCTAAAGTGTGTTGTTGCTTTAGGCTCACGGCACGCTTGC
GTATGTCTGTTACCATGTCACTGTGGTCCTATGCCGAATGCCCTCAGGGGACTTGAATCTTTCCAATAAACCAGG
TTTAGACAGTATGAGTCAATGTGCAGTGTAGCCCACACTTGAGAGGATGAATGTATGTGCACTGTCACTTTGCTC
TGGGTGGAAGTACGTTATTGTTGACTTATTTTCTCTGTGTTTGTTCCTACAGCCCCTTTTTCATATGTTGCTCAG
TCTCCCTTTCCCTTCTTGGTGCTTACACATCTCAGACCCTTTAGCCAAACCCTTGTCAGTGACAGTATTTTGGTT
CTTAGTTCTCACTGTTCCCTCTGCTCCTGGAGCCTTTGAATAAAAATGCACGTAGCTGAGGCCGGATGCGGTGGC
TCACGCCTGTAATCCCAGCACTTTGGGAGGCCTAGGCGGGCGGTCAGGGGTTCGAGACCAGTCTGGCCAACATCG
TGAAACCCTGTCTCTACTAAAAATGCAAAAATTAGCCGGGCGTGGTGGCGGGCGCCTGTAATCCCAGCTACTTGG

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FIGURE 220B

GAAGCTGAGGCGGGAGAATCATGTGAACCCGGGACGCAGGGGTTGCAGTGAGCGGAGATCGCATCATTGCACTCT
AGCCTGGGCCACAGGGCGAGACTCCGTCTCAAAAAAAAAAAAAATGCACATAGCTATCGAGTGTGCTTTAGCTTGA
AAAGGTGACCTTGCAACTTCATGTCAACTTTCTGGCTCCTCAAACAGTAGGTTGGCAGTAAGGCAGGGTCCCATT
TCTCACTGAGAAGATTGTGAATATTTCCATATGGATTTTCTATTGTTACTCTGGTTCTTTGTTTTAAAATAAAAA
TTCTGAATGTACACG

FIGURE 221

MGTQKVTPALIFAITVATIGSFQFGYNTGVINAPEKIIKEFINKTLTDKGNAPPSEVLLTSLWSLSVAIFSVGGM
IGSFSVGLFVNRFGRRNSMLIVNLLAVTGGCFMGLCKVAKSVEMLILGRLVIGLFCGLCTGFVPMYIGEISPTAL
RGAFGTLNQLGIVVGILVAQIFGLEFILGSEELWPLLLGFTILPAILQSAALPFCPESPRFLLINRKEEENAKQI
LQRLWGTQDVSQDIQEMKDESARMSQEKQVTVLELFRVSSYRQPIIISIVLQLSQQLSGINAVFYYSTGIFKDAG
VQEPIYATIGAGVVNTIFTVVSLFLVERAGRRTLHMIGLGGMAFCSTLMTVSLLLKDNYNGMSFVCIGAILVFVA
FFEIGPGPIPWFIVAELFSQGPRPAAMAVAGCSNWTSNFLVGLLFPSAAHYLGAYVFIIFTGFLITFLAFTFFKV
PETRGRTFEDITRAFEGQAHGADRSGKDGVMEMNSIEPAKETTTNV

FIGURE 222

GTGAAACACCCTCGGCTGGGAAGTCAGTTCGTTCTCTCCTCTCCTCTCTTCTTGTTTGAAC**ATG**GTGCGGACTAA
AGCAGACAGTGTTCCAGGCACTTACAGAAAAGTGGTGGCTGCTCGAGCCCCCAGAAAGGTGCTTGGTTCTTCCAC
CTCTGCCACTAATTCGACATCAGTTTCATCGAGGAAAGCTGAAAATAAATATGCAGGAGGGAACCCCGTTTGCGT
GCGCCCAACTCCCAAGTGGCAAAAAGGAATTGGAGAATTCTTTAGGTTGTCCCCTAAAGATTCTGAAAAAGAGAA
TCAGATTCCTGAAGAGGCAGGAAGCAGTGGCTTAGGAAAAGCAAAGAGAAAAGCATGTCCTTTGCAACCTGATCA
CACAAATGATGAAAAAGAA**TAG**AACTTTCTCATTCATCTTTGAATAACGTCTCCTTGTTTACCCTGGTATTCTAG
AATGTAAATTTACATAAATGTGTTTGTTCCAATTAGCTTTGTTGAACAGGCATTTAATTAAAAAATTTAGGTTTA
AATTTAGATGTTCAAAAGTAGTTGTGAAATTTGAGAATTTGTAAGACTAATTATGGTAACTTAGCTTAGTATTCA
ATATAATGCATTGTTTGGTTTCTTTTACCAAATTAAGTGTCTAGTTCTTGCTAAAATCAAGTCATTGCATTGTGT
TCTAATTACAAGTATGTTGTATTTGAGATTTGCTTAGATTGTTGTACTGCTGCCATTTTTATTGGTGTTTGATTA
TTGGAATGGTGCCATATTGTCACTCCTTCTACTTGCTTTAAAAAGCAGAGTTAGATTTTTGCACATTAAAAAATT
CAGTATTAATT

FIGURE 223

MVRTKADSVPGTYRKVVAARAPRKVLGSSTSATNSTSVSSRKAENKYAGGNPVCVRPTPKWQKGIGEFFRLSPKD
SEKENQIPEEAGSSGLGKAKRKACPLQPDHTNDEKE

FIGURE 224A

CGGACGCGTGGGAACGAAGCCACCCATTACGGTATGATGATGTCAAACGTGATGCTGATGCTACAGTTACAGCCC
CTGCTGGCGCAGCCTCTCTGATTCTCTCTCCCTCTCCGCGTCCAGTGCTGGGCTTTTTCAGACAAGTGCATCTCC
TAACCAGGTCACATTTCAGCCGCGACCCACTCTCCGCCAGTCACCGGAGGCAGACCGCGGGAGGAGAGCTGAGGA
CAGCCGCGTGCGCTTCGCCAGCAGCGGGGTGGGAGGAAGGACATTAAAATACTGCAGAAGTCAAGACCCCCCAGG
TCGAACCCAGACCACG**ATG**CGCGCCCCGGGCTGCGGGCGGCTGGTGCTGCCGCTGCTGCTCCTGGCCGCGGCAGC
CCTGGCCGAAGGCGACGCCAAGGGGCTCAAGGAGGGCGAGACCCCCGGCAATTTCATGGAGGACGAGCAATGGCT
GTCGTCCATCTCGCAGTACAGCGGCAAGATCAAGCACTGGAACCGCTTCCGAGACGAAGTGGAGGATGACTATAT
CAAGAGCTGGGAGGACAATCAGCAAGGAGATGAAGCCCTGGATACCACCAAGGACCCCTGCCAGAAGGTGAAGTG
CAGCCGCCACAAGGTGTGCATTGCCCAGGGCTACCAGCGGGCCATGTGCATCAGTCGCAAGAAGCTGGAGCACAG
GATCAAGCAGCCGACCGTGAAACTCCATGGAAACAAAGACTCCATCTGCAAGCCCTGCCACATGGCCCAGCTTGC
CTCTGTCTGCGGCTCAGATGGCCACACTTACAGCTCTGTGTGTAAGCTGGAGCAACAGGCGTGCCTGAGCAGCAA
GCAGCTGGCGGTGCGATGCGAGGGCCCCTGCCCCTGCCCCACGGAGCAGGCTGCCACCTCCACCGCCGATGGCAA
ACCAGAGACTTGCACCGGTCAGGACCTGGCTGACCTGGGAGATCGGCTGCGGGACTGGTTCCAGCTCCTTCATGA
GAACTCCAAGCAGAATGGCTCAGCCAGCAGTGTAGCCGGCCCGGCCAGCGGGCTGGACAAGAGCCTGGGGGCCAG
CTGCAAGGACTCCATTGGCTGGATGTTCTCCAAGCTGGACACCAGTGCTGACCTCTTCCTGGACCAGACGGAGCT
GGCCGCCATCAACCTGGACAAGTACGAGGTCTGCATCCGTCCCTTCTTCAACTCCTGTGACACCTACAAGGATGG
CCGGGTCTCTACTGCTGAGTGGTGCTTCTGCTTCTGGAGGGAGAAGCCCCCTGCCTGGCAGAGCTGGAGCGCAT
CCAGATCCAGGAGGCCGCCAAGAAGAAGCCAGGCATCTTCATCCCGAGCTGCGACGAGGATGGCTACTACCGGAA
GATGCAGTGTGACCAGAGCAGCGGTGACTGCTGGTGTGTGGACCAGCTGGGCCTGGAGCTGACTGGCACGCGCAC
GCATGGGAGCCCCGACTGCGATGACATCGTGGGCTTCTCGGGGGACTTTGGAAGCGGTGTCGGCTGGGAGGATGA
GGAGGAGAAGGAGACGGAGGAAGCAGGCGAGGAGGCCGAGGAGGAGGAGGGCGAGGCAGGCGAGGCTGACGACGG
GGGCTACATCTGG**TAG**ACGCCCTCAGAAGCCGGCTGCCGGGGGGGGACTCAACAGCAGAGCTCTGAGCAGCAGCAG
GCAACTTCGAGAACGGATCCAGAAATGCAGTCAGAAGGACCCTGCTCCACCTGGGGGGACTGGGAGTGTGAGTGT
GCATGGCATGTGTGTGGCACAGATGGCTGGGACGGGTGACAGTGTGAGTGCATGTGTGCATGCATGTGTGTATGT
GTGTGTGTGTGGCATGCGCTGACAAATGTGTCCTTGATCCACACTGCTCCTGGCAGAGTGAGTAACCCAAAGG
CCCCTTCGGCCTCCTTGTAGCTGTTTTCTTTCCTTTTGTTGTTGGTTTTAAAATACATTCACACACAAATACAAA
TTGACAGGTCAAAATCCATGAAATGAGATCCCCCAGCCGTGTCCTCCAGCCCAGCCCTGACCCCTTGGTTTCTAC
CCTGGCTCCCCTTGGTTTCTACCCTGGCTCAACCGACCCCTGTCTGCCCTTCTCCCTCCTGCTTCTGAGGTCAAG
CTCTGGCCTGCGAGCCTGTCCCCATTGCAAAGGGGAGGGAGGGGCAGGGAGCTGTCTACCAGCTGAGGTCCTCCC
AAAACTGGGCCGATGTGGTGTGACATCCCCACCAGCCTCAGATGAGACGGGCCAGGACGCCCAGCCACAGCAAGC
CCTGTCCCTTTGCCGGATCCCCAAACACTAGAGAAGCTCTCCTAACCCAAGGCGGAGAATGAAGGTGGTGGCGGC
AGAGGAGGAGGGCAGCAGCTGAGAGGCCAGGGACAGGGTGCCTCGCCAAGCTGTCTGAGGTCTGTCCCAGGTGGC
CCAGGTGGTGCAGGTAGAACAGGGTGAGGAGAGGGGGTCGGCTCAACAGGAGGAGGCTGTGGCTGCAGAGCCTGG
AGGAGCTTTTAGGTGTTGAGATGGGGCAGCTCTGAATCCTAGACCCTGGAATAGCCTGTCCCTTTTCTCTGGGTC
TCGTGGTGGAGCCATGATCTGGGCTGCTCTCTTGGGGACACTGGGTGGTGGTTACACAGTTGACCTCTGCCTGGC
TCCCCCTTGGTGCAACTCCTGCCTCCATCCCCCTTGCTGGGGTCCCCTCATCCACTTGAGGGCGCCTGAGGGCCA
GGAGCAGCAGGCAAGGAGCCTGGGTCTAGGCTAAGGGGGTGTGTGCCCACCTCCTCCCTGACCCTTAACACTCCT
GTCCTGCCCAGACCAACAGAGAGAGCTGTCCCTGAGACCCCGGAGAGAAGCAGCTGCCGAAAGCTGCAGCCTTTC
CGCACTCTGAGACCATGATCTTCCTCCTGCCAGGGGAGAGCCACCCACAGGCCATGTCCAGCCCCACTTCCCTCA
GCCCCCAGGGCTTCCTTCTGGCCCCTCTGAGGATTCCCTAGGGCTGCCCCGCAGAGGGGCTTCCCCAAGCTCTGT
TTTGAAGCCTGCAATGTGGAAAAGTGAGAAGTCAGAGGGAACAGGACAGGTGCAGCCGGGCTCTGAGGCCACACC
TCACACCTCGCTGTTCCCCAACATCCCCTGAGCAGTGTGAGCTCATCTCACCAGATGAGAAGAGGCCCTGTGCAT
TTCTTTTGTTTGTTTGTTGCTGTTTTCCCCCACCCATCCAGTTCTCCTCAGCAAAGCAAATTCCTTAACACCTTT
GGTGGAGAATTTCTTACCCAGACTTGGGGCTGTGATGCCCTTCAGTGCGTGGTGAGTGCAGCGTGTGTGCGTGTG
CCTGTGTGTGAACCTGGGGGCCATCCTGGTGGCCTGGGAGCGTGAGGAGAGGCCCCCTGTGTGCTGGGTGAGTGG
TGGGTGTGGGGTCAATGCAGTGAGGCTCTCTGGGTGAGGCTCCCAACCTGGCAGTCCCCAGCCTCCCAGCATCTG
TGAGCGTCTGTTGGACTTTACAGAAGAGCCTCATCCCGTCTGCCCCTCACTCTGCCCTGGAATCAACATCTTCCG
AGTCCTTCTTGGGGGAAATAGCAGAGCCCCACTTAACTCCATAAACTGCTTCCCATTCCGCAGCCCAGTTCTGAT

FIGURE 224B

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TGTTGAGGTGTCGCGTCGTTCCAGGTCCCCCAGTCCCCTCTTTCTCCTGTCCTCTCTCTGTCCTTCACCTCCCCA
CTCCAGCCCCGGCTCAGTTCAGGGAAATGCTGTTCCATATCAGCCCTCTGCTCTCTGAGGCAGCCGCGCCTCTGA
CTCGGAGCTACTTGAAACTTCTGCTCTTGCTAGGATTGGAGTCTACCTATCTCTTCCATTTGTCCCAGCTGGAGT
TCTGGAACTTTCCTCCTCGGGGTGGGGGTGGGGGTTGTTAAGGATGCTGGGGGGCCTGGGGAAGGAAGGAGTTCA
GAGGAAGGGTGTCCCCTGTCCTCTTGATGTCACCCTCCGCTCCTGGGACACGTGCTCTCTCTGTCTCTGGGTCTT
CTGGCTGTGCACGTTTGTGTGTCCTTGTAAATATGTTTAGGAAGAAAGCAAAAGGGACTGAACTAGCCTCTGGT
AGGATTGCAGGGGTCCAGCCTTGCCTGTTTCCGAAGCCCCCACACTGCCTTTCGCCCCACTGAGACTGGTCCCCT
CAAAAGGTAGACAAAACAGCAGCTCCCTGTGGAGCTGAAGGGCGGCCTCAAAGTGGCTTTTTGTTAGACAAGGTT
AAGGTTTCCTCATGAGCAAGGTTGCAGATCGGTCCTTCCTCAGCTCCTTGATTTGTGACCTTGACCAAGGGGCCT
GCCACCCAGCCCCTCCAGTGCCCTCTCCTCGATGCCTCGCTCCTTCCTGCCCCCACTCCCCTGGCTTAGGCAGGT
AGGGGAATTAGGGCCATGCTGGAAGAAGCTTAACCATGTGTTCAAAGAACGGTTTCTTGCTTGCTTGGTCCTGGA
ACTCCCCTTGGCTGCCCCAGGCCTCCTTGGCCCATGGGTGCTGGGGGAGGTGGATGTCAGATCTGGTAGGTTGCA
GCAGAGAAAATAAATGTGCCTTGAGAGACCACTCAGAGAGGGTCCAAGGGTGATGGAGAAGGAAGCATGGCCTGG
GAGCTTGGAAGGGAGGGGTGGTGGGTGGCGGCATCTTGACTGCCCCCTGTTGTCCCACACGTGGGGGGTGGTCAC
CCCCCTTCACTCCAGCCCGCCTGCCTTCAGCCTTCCATGAGCTTCACCTGCTTCCAACTTCACTTTGGAGGGGGT
GGGGTCCGTTGGCATCAACACGGGGACCCTCTGCTTCACCAAAGCCCGAGCCCTCAGCCCCTGGGGAGAACAAAT
GGCTGAGCTTTGATACCTGGGGTCGTCGAGAGGCTGCGGGCTGGCGGCAGTCCCAGGGGAGAGACACCACAGAAG
GAGACCCAGACATCCCGAGGAAGTTCCCAGCAGAGCAAACTGCTTTCCAGCCTGAAGCCTGCTTAAACTGTGTGA
TGTGCAATAACTGAGCTTAGAGTTAGGAATTGTGTTCAAGTGCTTGGATTTCCGTCTGTAGATTTAACTGCTGAA
ATTGTATCTCTCAGTAATTTTAGATGTCTTTTAAAAAATTGAAAAACAAAGTGTTAGACTGTGTGCGTGTGCGTT
GATGGGCACTCAAGAGTCCCGTGAGTCATCCAGCCCTGCCTTTCCCTGCGCCCCCATCCTCTCACGTCCCGCCC
TGCCTCCACTTGGGGACCCTGCCTCGTGTCGTCTTTATCTGCCTATTACTCAGCCTAAGGAAACAAGTACACTCC
ACACATGCATAAAGGAAATCAAATGTTATTTTTAAGAAAATGGAAAATAAAAACTTTATAAACACC
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FIGURE 225

MRAPGCGRLVLPLLLLAAAALAEGDAKGLKEGETPGNFMEDEQWLSSISQYSGKIKHWNRFRDEVEDDYIKSWED
NQQGDEALDTTKDPCQKVKCSRHKVCIAQGYQRAMCISRKKLEHRIKQPTVKLHGNKDSICKPCHMAQLASVCGS
DGHTYSSVCKLEQQACLSSKQLAVRCEGPCPCPTEQAATSTADGKPETCTGQDLADLGDRLRDWFQLLHENSKQN
GSASSVAGPASGLDKSLGASCKDSIGWMFSKLDTSADLFLDQTELAAINLDKYEVCIRPFFNSCDTYKDGRVSTA
EWCFCFWREKPPCLAELERIQIQEAAKKKPGIFIPSCDEDGYYRKMQCDQSSGDCWCVDQLGLELTGTRTHGSPD
CDDIVGFSGDFGSGVGWEDEEEKETEEAGEEAEEEEGEAGEADDGGYIW

FIGURE 226A

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TTCGGTGGCCTCTAGTGAGATCTGGAGGATCCAAGGATTCTGTAGCTACAATGTTGTCAAGACTTTTTCGAATGC
ATGGCCTCTTTGTGGCCTCCCATCCCTGGGAAGTCATAGTGGGGACAGTGACACTGACCATCTGCATGATGTCCA
TGAACATGTTACTGGTAACAATAAGATCTGTGGTTGGAATTATGAATGTCCAAAGTTTGAAGAGGATGTTTTGA
GCAGTGACATTATAATTCTGACAATAACACGATGCATAGCCATCCTGTATATTTACTTCCAGTTCCAGAATTTAC
GTCAACTTGGATCAAAATATATTTTGGGTATTGCTGGCCTTTTCACAATTTTCTCAAGTTTTGTATTCAGTACAG
TTGTCATTCACTTCTTAGACAAAGAATTGACAGGCTTGAATGAAGCTTTGCCCTTTTTCCTACTTTTGATTGACC
TTTCCAGAGCAAGCACATTAGCAAAGTTTGCCCTCAGTTCCAACTCACAGGATGAAGTAAGGGAAAATATTGCTC
GTGGAATGGCAATTTTAGGTCCTACGTTTACCCTCGATGCTCTTGTTGAATGTCTTGTGATTGGAGTTGGTACCA
TGTCAGGGGTACGTCAGCTTGAAATTATGTGCTGCTTTGGCTGCATGTCAGTTCTTGCCAACTACTTCGTGTTCA
TGACTTTCTTCCCAGCTTGTGTGTCCTTGGTATTAGAGCTTTCTCGGGAAAGCCGCGAGGGTCGTCCAATTTGGC
AGCTCAGCCATTTTGCCCGAGTTTTAGAAGAAGAAGAAAATAAGCCGAATCCTGTAACTCAGAGGGTCAAGATGA
TTATGTCTCTAGGCTTGGTTCTTGTTCATGCTCACAGTCGCTGGATAGCTGATCCTTCTCCTCAAAACAGTACAG
CAGATACTTCTAAGGTTTCATTAGGACTGGATGAAAATGTGTCCAAGAGAATTGAACCAAGTGTTTCCCTCTGGC
AGTTTTATCTCTCTAAAATGATCAGCATGGATATTGAACAAGTTATTACCCTAAGTTTAGCTCTCCTTCTGGCTG
TCAAGTACATCTTCTTTGAACAAACAGAGACAGAATCTACACTCTCATTAAAAAACCCTATCACATCTCCTGTAG
TGACACAAAAGAAAGTCCCAGACAATTGTTGTAGACGTGAACCTATGCTGGTCAGAAATAACCAGAAATGTGATT
CAGTAGAGGAAGAGACAGGGATAAACCGAGAAAGAAAAGTTGAGGTTATAAAACCCTTAGTGGCTGAAACAGATA
CCCCAAACAGAGCTACATTTGTGGTTGGTAACTCCTCCTTACTCGATACTTCATCAGTACTGGTGACACAGGAAC
CTGAAATTGAACTTCCCAGGGAACCTCGGCCTAATGAAGAATGTCTACAGATACTTGGGAATGCAGAGAAAGGTG
CAAAATTCCTTAGTGATGCTGAGATCATCCAGTTAGTCAATGCTAAGCATATCCCAGCCTACAAGTTGGAAACTC
TGATGGAAACTCATGAGCGTGGTGTATCTATTCGCCGACAGTTACTTTCCAAGAAGCTTTCAGAACCTTCTTCTC
TCCAGTACCTACCTTACAGGGATTATAATTACTCCTTGGTGATGGGAGCTTGTTGTGAGAATGTTATTGGATATA
TGCCCATCCCTGTTGGAGTGGCAGGACCCCTTTGCTTAGATGAAAAGAATTTCAGGTTCCAATGGCAACAACAG
AAGGTTGTCTTGTGGCCAGCACCAATAGAGGCTGCAGAGCAATAGGTCTTGGTGGAGGTGCCAGCAGCCGAGTCC
TTGCAGATGGGATGACTCGTGGCCCAGTTGTGCGTCTTCCACGTGCTTGTGACTCTGCAGAAGTGAAAGCCTGGC
TCGAAACATCTGAAGGGTTCGCAGTGATAAAGGAGGCATTTGACAGCACTAGCAGATTTGCACGTCTACAGAAAC
TTCATACAAGTATAGCTGGACGCAACCTTTATATCCGTTTCCAGTCCAGGTCAGGGGATGCCATGGGGATGAACA
TGATTTCAAAGGGTACAGAGAAAGCACTTTCAAAACTTCACGAGTATTTCCCTGAAATGCAGATTCTAGCCGTTA
GTGGTAACTATTGTACTGACAAGAAACCTGCTGCTATAAATTGGATAGAGGGAAGAGGAAAATCTGTTGTTTGTG
AAGCTGTCATTCCAGCCAAGGTTGTCAGAGAAGTATTAAAGACTACCACAGAGGCTATGATTGAGGTCAACATTA
ACAAGAATTTAGTGGGCTCTGCCATGGCTGGGAGCATAGGAGGCTACAACGCCCATGCAGCAAACATTGTCACCG
CCATCTACATTGCCTGTGGACAGGATGCAGCACAGAATGTTGGTAGTTCAAACTGTATTACTTTAATGGAAGCAA
GTGGTCCCACAAATGAAGATTTATATCAGCTGCACCATGCCATCTATAGAGATAGGAACGGTGGGTGGTGGGA
CCAACCTACTACCTCAGCAAGCCTGTTTGCAGATGCTAGGTGTTCAAGGAGCATGCAAAGATAATCCTGGGGAAA
ATGCCCGGCAGCTTGCCCGAATTGTGTGTGGGACCGTAATGGCTGGGGAATTGTCACTTATGGCAGCATTGGCAG
CAGGACATCTTGTCAAAAGTCACATGATTCACAACAGGTCGAAGATCAATTTACAAGACCTCCAAGGAGCTTGCA
CCAAGAAGACAGCCTGAATAGCCCGACAGTTCTGAACTGGAACATGGGCATTGGGTTCTAAAGGACTAACATAAA
ATCTGTGAATTAAAAAAGCTCAATGCATTGTCTTGTGGAGGATGAATAAATGTGATCACTGAGACAGCCACTTGG
TTTTTGGCTCTTTCAGAGAGGTCTCAGGTTCTTTCCATGCAGACTCCTCAGATCTGAACACAGTTTAGTGCTTTA
CATGCTGTGCTCTTTGAAGAGATTTCAACAAGAATATTGTATGTTAAAGCATCAGAGATGGTAATCTACAGCTCA
CCTCTGAAAGCAAATATAAGCTGGGAAAAAGTTTTGATGAAATTCTTGAAGTTCATGGTGATCAGTGCAATTGA
CCTTCTCCCTCACTCCTGCCAGTTGAAAATGGATTTTTAAATTATACTGTAGCTGATGAAACTCCTGATTTTGTA
GTTAATTTATTAAGTCTGGGATGTAGAACTTCAAGAAGTAAGAGCTAAGTTCTAAGTTCATGTTTGTAAATTAAT
ACTTCATTTGGTGCTGGTCTATTTTGATTTTGGGGGGTAATCAGCATTATTCTTCAGAAGGGGACCTGTTTTCTT
CAAGGGAAGAAACACTCTTATTCCCAAACTACAGAATAATGTGTTAAACATGCTAAATAGTTCTATCAGGAAAAC
AAATCACTGTATTTATCTCCGCAGGCTATTTGTTCAGAGAGGCCTTTTGTTTAAATATAAATGTTTAAATATAAA
TGTTTGTCTGGATTGGCTATAACATGTCTTTCAGCATTAGGCTTTTAAGAAACACAGGGTTTTGTATTCTTTACT
AAAGATATCAGAGCTCTTAATGTTGCTTAGATGAGGGTGACTGTCAAGTACAAGCAAGACTGGGACCTTAGAAAT
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FIGURE 226B

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CATTGTAGAAACACAGTTTTGAAAGATTTTTACCATGTCTCTAAGCCAACTTTAATTGCTTAAAAGACATTTTA
TTTAGTTGAAAAATCTAGTTTTTTTTGTAAACTGTACCAAATCTGTATATGTTGTAATAAAACTTATGCTAGTTT
ATTGGAAGTGTTCAAGAAATAAAAATCAACTTGTGTACTGATAAAATACTCTAGCCTGGGCCAGAGAAGATAATG
TTCTTTAATGTTGTCAGGAAACCCTGGCTTGCTTGCCGAGCCTAATGAAAGGGAAAGTCAGCTTTCAGAGCCAGT
GAAGGAGCCACGTGAATGGCCCTAGAACTGTGCCTAGTTCCTGTGGCCAGGAGGTTGGTGACTGAAACATTCACA
CAGGGCTCTTGGATGGACCCACGAACGCTCTTAGCTTTCTCAGGGGGTCAGCAGAGTTATTGAATCTTAATTTTT
TTTAATGTACAAGTTTTGTATAAATAATAAAGAACTCCTTATTTTGTATTACATCTAATGCTTAAGTGTTGCTCT
TGGAAAGCTGATGATGTCTCTTGTAGAGATGACTCTGAAAAACATTCCAGGAAACCATGGCAGCATGGAGAGCCT
CTTAGTGATTGTGTCTGCATTGTTATTGTGGAAGATTTACCTTTTCTGTTGTACGTAAAGCTTAAATTACTTTTG
TTGTGACTTTTTAGCCAGTGACTTTTTCTGAGCTTTTCATGGAAGTGGCAGTGAAAAATATGTTGAGTGTTCAAA
AAAGTGACTGTAATTAATATCTTGCTGGATTAATGTTTTGTACAATTACTAAATTGTATACATTTTGTTATAGAA
TACTTTTTTCTAGTTTCAGTAAATAATGAAAAGGAAGTTAATACCA
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FIGURE 227

MLSRLFRMHGLFVASHPWEVIVGTVTLTICMMSMNMFTGNNKICGWNYECPKFEEDVLSSDIIILTITRCIAILY
IYFQFQNLRQLGSKYILGIAGLFTIFSSFVFSTVVIHFLDKELTGLNEALPFFLLLIDLSRASTLAKFALSSNSQ
DEVRENIARGMAILGPTFTLDALVECLVIGVGTMSGVRQLEIMCCFGCMSVLANYFVFMTFFPACVSLVLELSRE
SREGRPIWQLSHFARVLEEEENKPNPVTQRVKMIMSLGLVLVHAHSRWIADPSPQNSTADTSKVSLGLDENVSKR
IEPSVSLWQFYLSKMISMDIEQVITLSLALLLAVKYIFFEQTETESTLSLKNPITSPVVTQKKVPDNCCRREPML
VRNNQKCDSVEEETGINRERKVEVIKPLVAETDTPNRATFVVGNSSLLDTSSVLVTQEPEIELPREPRPNEECLQ
ILGNAEKGAKFLSDAEIIQLVNAKHIPAYKLETLMETHERGVSIRRQLLSKKLSEPSSLQYLPYRDYNYSLVMGA
CCENVIGYMPIPVGVAGPLCLDEKEFQVPMATTEGCLVASTNRGCRAIGLGGGASSRVLADGMTRGPVVRLPRAC
DSAEVKAWLETSEGFAVIKEAFDSTSRFARLQKLHTSIAGRNLYIRFQSRSGDAMGMNMISKGTEKALSKLHEYF
PEMQILAVSGNYCTDKKPAAINWIEGRGKSVVCEAVIPAKVVREVLKTTTEAMIEVNINKNLVGSAMAGSIGGYN
AHAANIVTAIYIACGQDAAQNVGSSNCITLMEASGPTNEDLYISCTMPSIEIGTVGGGTNLLPQQACLQMLGVQG
ACKDNPGENARQLARIVCGTVMAGELSLMAALAAGHLVKSHMIHNRSKINLQDLQGACTKKTA

FIGURE 228A

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TTCGGTGGCCTCTAGTGAGATCTGGAGGATCCAAGGATTCTGTAGCTACAATGTTGTCAAGACTTTTTCGAATGC
ATGGCCTCTTTGTGGCCTCCCATCCCTGGGAAGTCATAGTGGGGACAGTGACACTGACCATCTGCATGATGTCCA
TGAACATGTTACTGGTAACAATAAGATCTGTGGTTGGAATTATGAATGTCCAAAGTTTGAAGAGGATGTTTTGA
GCAGTGACATTATAATTCTGACAATAACACGATGCATAGCCATCCTGTATATTTACTTCCAGTTCCAGAATTTAC
GTCAACTTGGATCAAAATATATTTTGGGTATTGCTGGCCTTTTCACAATTTTCTCAAGTTTTGTATTCAGTACAG
TTGTCATTCACTTCTTAGACAAAGAATTGACAGGCTTGAATGAAGCTTTGCCCTTTTTCCTACTTTTGATTGACC
TTTCCAGAGCAAGCACATTAGCAAAGTTTGCCCTCAGTTCCAACTCACAGGATGAAGTAAGGGAAAATATTGCTC
GTGGAATGGCAATTTTAGGTCCTACGTTTACCCTCGATGCTCTTGTTGAATGTCTTGTGATTGGAGTTGGTACCA
TGTCAGGGGTACGTCAGCTTGAAATTATGTGCTGCTTTGGCTGCATGTCAGTTCTTGCCAACTACTTCGTGTTCA
TGACTTTCTTCCCAGCTTGTGTGTCCTTGGTATTAGAGCTTTCTCGGGAAAGCCGCGAGGGTCGTCCAATTTGGC
AGCTCAGCCATTTTGCCCGAGTTTTAGAAGAAGAAGAAAATAAGCCGAATCCTGTAACTCAGAGGGTCAAGATGA
TTATGTCTCTAGGCTTGGTTCTTGTTCATGCTCACAGTCGCTGGATAGCTGATCCTTCTCCTCAAAACAGTACAG
CAGATACTTCTAAGGTTTCATTAGGACTGGATGAAAATGTGTCCAAGAGAATTGAACCAAGTGTTTCCCTCTGGC
AGTTTTATCTCTCTAAAATGATCAGCATGGATATTGAACAAGTTATTACCCTAAGTTTAGCTCTCCTTCTGGCTG
TCAAGTACATCTTCTTTGAACAAACAGAGACAGAATCTACACTCTCATTAAAAAACCCTATCACATCCTGTAG
TGACACAAAAGAAAGTCCCAGACAATTGTTGTAGACGTGAACCTATGCTGGTCAGAAATAACCAGAAATGTGATT
CAGTAGAGGAAGAGACAGGGATAAACCGAGAAAGAAAAGTTGAGGTTATAAAACCCTTAGTGGCTGAAACAGATA
CCCCAAACAGAGCTACATTTGTGGTTGGTAACTCCTCCTTACTCGATACTTCATCAGTACTGGTGACACAGGAAC
CTGAAATTGAACTTCCCAGGGAACCTCGGCCTAATGAAGAATGTCTACAGATACTTGGGAATGCAGAGAAAGGTG
CAAAATTCCTTAGTGATGCTGAGATCATCCAGTTAGTCAATGCTAAGCATATCCCAGCCTACAAGTTGGAAACTC
TGATGGAAACTCATGAGCGTGGTGTATCTATTCGCCGACAGTTACTTTCCAAGAAGCTTTCAGAACCTTCTTCTC
TCCAGTACCTACCTTACAGGGATTATAATTACTCCTTGGTGATGGGAGCTTGTTGTGAGAATGTTATTGGATATA
TGCCCATCCCTGTTGGAGTGGCAGGACCCCTTTGCTTAGATGAAAAAGAATTTCAGGTTCCAATGGCAACAACAG
AAGGTTGTCTTGTGGCCAGCACCAATAGAGGCTGCAGAGCAATAGGTCTTGGTGGAGGTGCCAGCAGCCGAGTCC
TTGCAGATGGGATGACTCGTGGCCCAGTTGTGCGTCTTCCACGTGCTTGTGACTCTGCAGAAGTGAAAGCCTGGC
TCGAAACATCTGAAGGGTTCGCAGTGATAAAGGAGGCATTTGACAGCACTAGCAGATTTGCACGTCTACAGAAAC
TTCATACAAGTATAGCTGGACGCAACCTTTATATCCGTTTCCAGTCCAGGTCAGGGGATGCCATGGGGATGAACA
TGATTTCAAAGGGTACAGAGAAAGCACTTTCAAAACTTCACGAGTATTTCCCTGAAATGCAGATTCTAGCCGTTA
GTGGTAACTATTGTACTGACAAGAAACCTGCTGCTATAAATTGGATAGAGGGAAGAGGAAAATCTGTTGTTTGTG
AAGCTGTCATTCCAGCCAAGGTTGTCAGAGAAGTATTAAAGACTACCACAGAGGCTATGATTGAGGTCAACATTA
ACAAGAATTTAGTGGGCTCTGCCATGGCTGGGAGCATAGGAGGCTACAACGCCCATGCAGCAAACATTGTCACCG
CCATCTACATTGCCTGTGGACAGGATGCAGCACAGAATGTTGGTAGTTCAAACTGTATTACTTTAATGGAAGCAA
GTGGTCCCACAAATGAAGATTTATATATCAGCTGCACCATGCCATCTATAGAGATAGGAACGGTGGGTGGTGGGA
CCAACCTACTACCTCAGCAAGCCTGTTTGCAGATGCTAGGTGTTCAAGGAGCATGCAAAGATAATCCTGGGGAAA
ATGCCCGGCAGCTTGCCCGAATTGTGTGTGGGACCGTAATGGCTGGGGAATTGTCACTTATGGCAGCATTGGCAG
CAGGACATCTTGTCAAAAGTCACATGATTCACAACAGGTCGAAGATCAATTTACAAGACCTCCAAGGAGCTTGCA
CCAAGAAGACAGCCTGAATAGCCCGACAGTTCTGAACTGGAACATGGGCATTGGGTTCTAAAGGACTAACATAAA
ATCTGTGAATTAAAAAAGCTCAATGCATTGTCTTGTGGAGGATGAATAAATGTGATCACTGAGACAGCCACTTGG
TTTTTGGCTCTTTCAGAGAGGTCTCAGGTTCTTTCCATGCAGACTCCTCAGATCTGAACACAGTTTAGTGCTTTA
CATGCTGTGCTCTTTGAAGAGATTTCAACAAGAATATTGTATGTTAAAGCATCAGAGATGGTAATCTACAGCTCA
CCTCTGAAAGCAAATATAAGCTGGGAAAAAGTTTTGATGAAATTCTTGAAGTTCATGGTGATCAGTGCAATTGA
CCTTCTCCCTCACTCCTGCCAGTTGAAAATGGATTTTAAATTATACTGTAGCTGATGAAACTCCTGATTTTGTA
GTTAATTTATTAAGTCTGGGATGTAGAACTTCAAGAAGTAAGAGCTAAGTTCTAAGTTCATGTTTGTAAATTAAT
ACTTCATTTGGTGCTGGTCTATTTTGATTTTGGGGGGTAATCAGCATTATTCTTCAGAAGGGGACCTGTTTTCTT
CAAGGGAAGAAACACTCTTATTCCCAAACTACAGAATAATGTGTTAAACATGCTAAATAGTTCTATCAGGAAAAC
AAATCACTGTATTTATCTCCGCAGGCTATTTGTTCAGAGAGGCCTTTTGTTTAAATATAAATGTTTAAATATAAA
TGTTTGTCTGGATTGGCTATAACATGTCTTTCAGCATTAGGCTTTTAAGAAACACAGGGTTTTGTATTCTTTACT
AAAGATATCAGAGCTCTTAATGTTGCTTAGATGAGGGTGACTGTCAAGTACAAGCAAGACTGGGACCTTAGAAAT
```

FIGURE 228B

CATTGTAGAAACACAGTTTTGAAAGATTTTTACCATGTCTCTAAGCCAACTTTAATTGCTTAAAAGACATTTTTA
TTTAGTTGAAAAATCTAGTTTTTTTTGTAAACTGTACCAAATCTGTATATGTTGTAATAAAACTTATGCTAGTTT
ATTGGAAGTGTTCAAGAAATAAAAATCAACTTGTGTACTGATAAAATACTCTAGCCTGGGCCAGAGAAGATAATG
TTCTTTAATGTTGTCAGGAAACCCTGGCTTGCTTGCCGAGCCTAATGAAAGGGAAAGTCAGCTTTCAGAGCCAGT
GAAGGAGCCACGTGAATGGCCCTAGAACTGTGCCTAGTTCCTGTGGCCAGGAGGTTGGTGACTGAAACATTCACA
CAGGGCTCTTGGATGGACCCACGAACGCTCTTAGCTTTCTCAGGGGGTCAGCAGAGTTATTGAATCTTAATTTTT
TTTAATGTACAAGTTTTGTATAAATAATAAAGAACTCCTTATTTTGTATTACATCTAATGCTTAAGTGTTGCTCT
TGGAAAGCTGATGATGTCTCTTGTAGAGATGACTCTGAAAAACATTCCAGGAAACCATGGCAGCATGGAGAGCCT
CTTAGTGATTGTGTCTGCATTGTTATTGTGGAAGATTTACCTTTTCTGTTGTACGTAAAGCTTAAATTACTTTTG
TTGTGACTTTTTAGCCAGTGACTTTTTCTGAGCTTTTCATGGAAGTGGCAGTGAAAAATATGTTGAGTGTTCAAA
AAAGTGACTGTAATTAATATCTTGCTGGATTAATGTTTTGTACAATTACTAAATTGTATACATTTTGTTATAGAA
TACTTTTTTCTAGTTTCAGTAAATAATGAAAAGGAAGTTAATACCA

FIGURE 229

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MLSRLFRMHGLFVASHPWEVIVGTVTLTICMMSMNMFTGNNKICGWNYECPKFEEDVLSSDIIILTITRCIAILY
IYFQFQNLRQLGSKYILGIAGLFTIFSSFVFSTVVIHFLDKELTGLNEALPFFLLLIDLSRASTLAKFALSSNSQ
DEVRENIARGMAILGPTFTLDALVECLVIGVGTMSGVRQLEIMCCFGCMSVLANYFVFMTFFPACVSLVLELSRE
SREGRPIWQLSHFARVLEEEENKPNPVTQRVKMIMSLGLVLVHAHSRWIADPSPQNSTADTSKVSLGLDENVSKR
IEPSVSLWQFYLSKMISMDIEQVITLSLALLLAVKYIFFEQTETESTLSLKNPITSPVVTQKKVPDNCCRREPML
VRNNQKCDSVEEETGINRERKVEVIKPLVAETDTPNRATFVVGNSSLLDTSSVLVTQEPEIELPREPRPNEECLQ
ILGNAEKGAKFLSDAEIIQLVNAKHIPAYKLETLMETHERGVSIRRQLLSKKLSEPSSLQYLPYRDYNYSLVMGA
CCENVIGYMPIPVGVAGPLCLDEKEFQVPMATTEGCLVASTNRGCRAIGLGGGASSRVLADGMTRGPVVRLPRAC
DSAEVKAWLETSEGFAVIKEAFDSTSRFARLQKLHTSIAGRNLYIRFQSRSGDAMGMNMISKGTEKALSKLHEYF
PEMQILAVSGNYCTDKKPAAINWIEGRGKSVVCEAVIPAKVVREVLKTTTEAMIEVNINKNLVGSAMAGSIGGYN
AHAANIVTAIYIACGQDAAQNVGSSNCITLMEASGPTNEDLYISCTMPSIEIGTVGGGTNLLPQQACLQMLGVQG
ACKDNPGENARQLARIVCGTVMAGELSLMAALAAGHLVKSHMIHNRSKINLQDLQGACTKKTA
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FIGURE 230

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GGCACGAGGAAGATATATGGATACAGATTATATATATATATACATATTTTCCTTAATAGAGGAATGCTTCATATT
ATTCAAAAATTATATCCTGATCACCTTTTTTTGTTTTTTATTGTAAAGTATCTCTGCTTTATCCATTGCTGAATT
CGATAGGATGTTGAAATGCTGGTCACCAAAAAAGGAAACTGAGCAAATTCATTTCAACAACATCAAAACTTCAGC
TTCTCATAGTAAAAAGCTGAATGTTACTAATATTTTTCATATCTAAAAAAAAATTCTTAGCAATGAAATTGCTGT
TAAAACACAAATTTCAATCAAATACTTTTGTGTATAGAAAATATGTATAGTAGGTAGATAGAAAAGTATAAAATG
TTTGTTGAAGTATCTTATTTTAGAATGAATGGAGAAATGCCAAAGATGAATCCTTCACTGCATTATGAAAATATT
TCACATGTTCTCTTGGACTTTATATAAATCTGTAATAGATTTTAGAATTGAAAAATTCTTTGTGAAGGTCTTCTA
AAAGTGTTCCAATTTATCTCAAAATCTCCATATATAGGATCAGCTTAAAACATAAAGAAAACCTTGAATTTCTCA
AATGTTTGAGATGTTCAAGACAGTCTCTTAATCCGTTAATGCTTTTGGAAACAATTGACAAAATAGGGCAGGCAG
CTCATCTCATGTCCTGAAGTTGGAATTTAAATAATTCCTATTTGCAAATTAGAATGACAGTGTTGGAATTTGGAG
GCAGTAGTTGAGCATATTCTCTAGTATATAGCTACACCTTTAATAAAATGAAGGAATGTCTTCAATCATATTTTA
GTGGGCTATTTATAAATAGTCTTGAAGTCAATTTAGTTTATTTATTTAAAAGATAATGCATCCTGAAAGGGATCA
TTTATGAATAACAATCTGAAGTCTTTTCATAAAAAAAATTAATAAACTTTAGTTGTACATTTAGCCAGTGTTATT
TGAAGTATGTAACTTTTAAAATATTAAGTGTCTTGTATGATTAGAATATGTGAATGAGTAACTTATTTTGTATCA
GGAATGTTTTGGTACTGTGTTTTCACTCAAACCACTGACTTAACAGATACTGCTGTGTATAACATGTACTAAATA
TTACAGTTATTGTGCATAACAGATTGTTCCTCTTATATTTGTGTGTATACAGGCAATTCATGTTTTAATGTAAAT
AAATACCATTTTGCAGTTAAAAAAAAAAAAAAAAAAAAAA
```

FIGURE 231

GGGGGGGGGGGGGACCACTTGGCCTGCCTCCGTCCCGCCGCGCCACTTGGCCTGCCTCCGTCCCGCCGCGCCACTT
CGCCTGCCTCCGTCCCCGCCCGCCGCGCC**ATG**CCTGTGGCCGGCTCGGAGCTGCCGCGCCGGCCCTTGCCCCCC
GCCGCACAGGAGCGGGACGCCGAGCCGCGTCCGCCGCACGGGGAGCTGCAGTACCTGGGGCAGATCCAACACATC
CTCCGCTGCGGCGTCAGGAAGGACGACCGCACGGGCACCGGCACCCTGTCGGTATTCGGCATGCAGGCGCGCTAC
AGCCTGAGAGATGAATTCCCTCTGCTGACAACCAAACGTGTGTTCTGGAAGGGTGTTTTGGAGGAGTTGCTGTGG
TTTATCAAGGGATCCACAAATGCTAAAGAGCTGTCTTCCAAGGGAGTGAAAATCTGGGATGCCAATGGATCCCGA
GACTTTTTGGACAGCCTGGGATTCTCCACCAGAGAAGAAGGGGACTTGGGCCCAGTTTATGGCTTCCAGTGGAGG
CATTTTGGGGCAGAATACAGAGATATGGAATCAGATTATTCAGGACAGGGAGTTGACCAACTGCAAAGAGTGATT
GACACCATCAAAACCAACCCTGACGACAGAAGAATCATCATGTGCGCTTGGAATCCAAGAGATCTTCCTCTGATG
GCGCTGCCTCCATGCCATGCCCTCTGCCAGTTCTATGTGGTGAACAGTGAGCTGTCCTGCCAGCTGTACCAGAGA
TCGGGAGACATGGGCCTCGGTGTGCCTTTCAACATCGCCAGCTACGCCCTGCTCACGTACATGATTGCGCACATC
ACGGGCCTGAAGCCAGGTGACTTTATACACACTTTGGGAGATGCACATATTTACCTGAATCACATCGAGCCACTG
AAAATTCAGCTTCAGCGAGAACCCAGACCTTTCCCAAAGCTCAGGATTCTTCGAAAAGTTGAGAAAATTGATGAC
TTCAAAGCTGAAGACTTTCAGATTGAAGGGTACAATCCGCATCCAACTATTAAAATGGAAATGGCTGTT**TAG**GGT
GCTTTCAAAGGAGCTTGAAGGATATTGTCAGTCTTTAGGGGTTGGGCTGGATGCCGAGGTAAAAGTTCTTTTTGC
TCTAAAAGAAAAAGGAACTAGGTCAAAAATCTGTCCGTGACCTATCAGTTATTAATTTTTAAGGATGTTGCCACT
GGCAAATGTAACTGTGCCAGTTCTTTCCATAATAAAAGGCTTTGAGTTAACTCACTGAGGGTATCTGACAATGCT
GAGGTTATGAACAAAGTGAGGAGAATGAAATGTATGTGCTCTTAGCAAAAACATGTATGTGCATTTCAATCCCAC
GTACTTATAAAGAAGGTTGGTGAATTTCACAAGCTATTTTGGAATATTTTTAGAATATTTTAAGAATTTCACAA
GCTATTCCCTCAAATCTGAGGGAGCTGAGTAACACCATCGATCATGATGTAGAGTGTGGTTATGAACTTTATAGT
TGTTTTATATGTTGCTATAATAAAGAAGTGTTCTGC

FIGURE 232

MPVAGSELPRRPLPPAAQERDAEPRPPHGELQYLGQIQHILRCGVRKDDRTGTGTLSVFGMQARYSLRDEFPLLT
TKRVFWKGVLEELLWFIKGSTNAKELSSKGVKIWDANGSRDFLDSLGFSTREEGDLGPVYGFQWRHFGAEYRDME
SDYSGQGVDQLQRVIDTIKTNPDDRRIIMCAWNPRDLPLMALPPCHALCQFYVVNSELSCQLYQRSGDMGLGVPF
NIASYALLTYMIAHITGLKPGDFIHTLGDAHIYLNHIEPLKIQLQREPRPFPKLRILRKVEKIDDFKAEDFQIEG
YNPHPTIKMEMAV

FIGURE 233

CTATCCGCGCGCGTCGCCGGCCCAGTCCTGTCGCTGACGGGAGGATCTGAAGCCGGCCGCAGGTCAAAGAGTAAA
ATGAAGTACATTCTGGTTACTGGTGGTGTTATATCAGGAATTGGAAAAGGAATCATTGCCAGCAGTGTGGGCACA
ATACTCAAGTCATGTGGTTTACATGTAACTTCAATCAAAATTGACCCCTACATTAACATTGATGCAGGAACATTC
TCTCCTTATGAGCATGGTGAGGTTTTTGTGCTGGATGATGGTGGGGAAGTAGACCTTGACCTGGGTAACTATGAG
CGGTTCCTTGACATCCGCCTCACCAAGGACAATAATCTGACCACTGGAAAGATATACCAGTATGTCATTAACAAG
GAACGGAAAGGAGATTACTTGGGGAAAACTGTCCAAGTTGTCCCTCATATCACAGATGCAATCCAGGAGTGGGTG
ATGAGACAGGCGTTAATACCTGTAGATGAAGATGGCCTGGAACCTCAAGTGTGTGTTATTGAGCTTGGTGGAACC
GTGGGGGACATAGAAAGCATGCCCTTTATTGAGGCCTTCCGTCAGTTCCAATTCAAGGTCAAAAGAGAGAACTTT
TGTAACATCCACGTCAGTCTAGTTCCCCAGCCAAGTTCAACAGGGGAACAGAAGACTAAACCTACCCAGAATAGT
GTTCGGGAACTTAGAGGACTTGGGCTTTCCCCAGATCTGGTTGTATGCAGGTGCTCAAATCCACTTGACACATCA
GTGAAGGAGAAAATATCAATGTTCTGCCATGTTGAGCCTGAACAAGTGATCTGTGTCCACGATGTCTCATCCATC
TACCGAGTCCCCTTGTTGTTAGAGGAGCAAGGGGTTGTAGATTATTTTCTTCGAAGACTTGACCTTCCTATTGAG
AGGCAGCCAAGAAAAATGCTGATGAAATGGAAAGAGATGGCTGACAGATATGATCGCTTGCTGGAGACCTGCTCT
ATTGCCCTTGTGGCGAAATACACCGAGTTCTCAGACTCCTATGCCTCTGTCATTAAGGCTCTGGAGCATTCTGCA
CTGGCCATCAACCACAAATTGGAAATCAAGTACATAGATTCTGCGGACTTGGAGCCCATCACCTCGCAAGAAGAG
CCCGTGCGCTACCACGAAGCTTGGCAGAAGCTCTGTAGTGCTCATGGAGTGCTGGTTCCAGGAGGATTTGGTGTT
CGAGGAACAGAAGGAAAAATCCAAGCAATTGCCTGGGCTCGGAATCAGAAAAAGCCTTTTTGGGCGTGTGCTTA
GGGATGCAGTTGGCAGTGGTTGAATTCTCAAGAAACGTGCTGGGATGGCAAGATGCCAATTCTACAGAGTTTGAC
CCTACGACCAGTCATCCCGTGGTCGTAGACATGCCAGAACACAACCCAGGGCAGATGGGCGGAACCATGAGGCTG
GGCAAGAGGAGAACCCTGTTCCAGACCAAGAACTCAGTCATGAGGAAACTCTATGGAGACGCAGACTACTTGGAA
GAGAGGCACCGCCACCGATTTGAGGTGAATCCAGTCTGGAAAAAGTGTTTGGAAGAACAAGGCTTGAAGTTTGTT
GGCCAAGATGTTGAAGGAGAGAGAATGGAAATTGTGGAGTTAGAAGATCATCCCTTTTTTGTTGGGGGTTCAGTAC
CACCCTGAGTTCCTGTCCAGGCCTATCAAGCCCTCCCCACCATACTTTGGCCTCCTCCTGGCCTCTGTGGGGCGG
CTCTCACATTACCTCCAGAAAGGCTGCAGGCTCTCACCCAGGGACACCTATAGTGACAGGAGTGGAAGCAGCTCC
CCTGACTCTGAAATCACCGAACTGAAGTTTCCATCAATAAATCATGAC**TGA**TCTTGTAGCGGATGATTCTTCAAG
AGACCCTTCAAACTTGGGTAGAGTTTACAGCTCTGACTTTACACTCGGCTTTGGAGACTTTCTTTAAATTATGTT
TTTATTAAGATTATTTTATTATGCGGAAAGGTATTTGGGAAACTTGTCACTTGCATGTCCCATCACGTGTACTGG
CTCCTCTGTGGTGTCTGCCTGTTGCGTGACACTCTCCTTGCAGTTCTTGAGTTGCGGCAGAACATCGCGATGGGA
ACCGATGGTGGGTGGGGCTGCAGATGTCCCCATCGGTCACCTTGTTTCTCAACTACCTCGCATCATTGCAGATCG
TAGCGCGTTGCCTGTCGCTTTCCCTTGGATACCTAGACCGTTATAAAGTGTGCCACATGGACTTACCGAGCATGG
AGAGAGGATTTTAGCTAGGATTTGAACACTTGGTGCTGGGAACCTCAGGGTATTGCTTGCCACTAAGCCATGAAA
CCAGAGACAAAATCTCTATACTGCCCTGAGTTGGGGGGAATTCTCAGTGCCAACTGTGGCTGGTCCTCATTCAAA
GGGACGGTCAGTTTGGTGTCAACATGAAACACCAAGATGTCTGTCTCTGAAGCGTGATTTTAAAATCCCCATGCC
TGTGCGTGCGCTTCCTATTTCTAGGGCTGGGAAACACTCCTTGCATCAAGGGGTCACTTACAGAACAAAGAATCT
TTTGGGGGAAACTTCCTCTAAAACCCTCTCATATATAGACAGCTTTGACTGGAGGGTCCATTTTTCTTCCAGGAT
GGTGTTACTGCAGTTGAAGGGCAATATGAAGTTACTTTCTTAATGTGACCTAGCAATAGGCATAGCTACGTGGCA
CTATATTCTGGCCAGACTCGATGTGTACTCTAACTTAAGAAATAAATCAGTAAGGCAG

FIGURE 234

MKYILVTGGVISGIGKGIIASSVGTILKSCGLHVTSIKIDPYINIDAGTFSPYEHGEVFVLDDGGEVDLDLGNYE
RFLDIRLTKDNNLTTGKIYQYVINKERKGDYLGKTVQVVPHITDAIQEWVMRQALIPVDEDGLEPQVCVIELGGT
VGDIESMPFIEAFRQFQFKVKRENFCNIHVSLVPQPSSTGEQKTKPTQNSVRELRGLGLSPDLVVCRCSNPLDTS
VKEKISMFCHVEPEQVICVHDVSSIYRVPLLLEEQGVVDYFLRRLDLPIERQPRKMLMKWKEMADRYDRLLETCS
IALVAKYTEFSDSYASVIKALEHSALAINHKLEIKYIDSADLEPITSQEEPVRYHEAWQKLCSAHGVLVPGGFGV
RGTEGKIQAIAWARNQKKPFLGVCLGMQLAVVEFSRNVLGWQDANSTEFDPTTSHPVVVDMPEHNPGQMGGTMRL
GKRRTLFQTKNSVMRKLYGDADYLEERHRHRFEVNPVWKKCLEEQGLKFVGQDVEGERMEIVELEDHPFFVGVQY
HPEFLSRPIKPSPPYFGLLLASVGRLSHYLQKGCRLSPRDTYSDRSGSSSPDSEITELKFPSINHD

FIGURE 235

GCGCCCCAGTCGACGCTGAGCTCCTCTGCTACTCAGAGTTGCAACCTCAGCCTCGCT**ATG**GCTCCCAGCAGCCCC
CGGCCCGCGCTGCCCGCACTCCTGGTCCTGCTCGGGGCTCTGTTCCCAGGACCTGGCAATGCCCAGACATCTGTG
TCCCCCTCAAAAGTCATCCTGCCCCGGGGGAGGCTCCGTGCTGGTGACATGCAGCACCTCCTGTGACCAGCCCAAG
TTGTTGGGCATAGAGACCCCGTTGCCTAAAAAGGAGTTGCTCCTGCCTGGGAACAACCGGAAGGTGTATGAACTG
AGCAATGTGCAAGAAGATAGCCAACCAATGTGCTATTCAAACTGCCCTGATGGGCAGTCAACAGCTAAAACCTTC
CTCACCGTGTACTGGACTCCAGAACGGGTGGAACTGGCACCCCTCCCCTCTTGGCAGCCAGTGGGCAAGAACCTT
ACCCTACGCTGCCAGGTGGAGGGTGGGGCACCCCGGGCCAACCTCACCGTGGTGCTGCTCCGTGGGGGAGAAGGAG
CTGAAACGGGAGCCAGCTGTGGGGGAGCCCGCTGAGGTCACGACCACGGTGCTGGTGAGGAGAGATCACCATGGA
GCCAATTTCTCGTGCCGCACTGAACTGGACCTGCGGCCCCAAGGGCTGGAGCTGTTTGAGAACACCTCGGCCCCC
TACCAGCTCCAGACCTTTGTCCTGCCAGCGACTCCCCCACAACTTGTCAGCCCCGGGTCCTAGAGGTGGACACG
CAGGGGACCGTGGTCTGTTCCCTGGACGGGCTGTTCCCAGTCTCGGAGGCCCAGGTCCACCTGGCACTGGGGGAC
CAGAGGTTGAACCCCACAGTCACCTATGGCAACGACTCCTTCTCGGCCAAGGCCTCAGTCAGTGTGACCGCAGAG
GACGAGGGCACCCAGCGGCTGACGTGTGCAGTAATACTGGGGAACCAGAGCCAGGAGACACTGCAGACAGTGACC
ATCTACAGCTTTCCGGCGCCCAACGTGATTCTGACGAAGCCAGAGGTCTCAGAAGGGACCGAGGTGACAGTGAAG
TGTGAGGCCCACCCTAGAGCCAAGGTGACGCTGAATGGGGTTCCAGCCCAGCCACTGGGCCCGAGGGCCCAGCTC
CTGCTGAAGGCCACCCCAGAGGACAACGGGCGCAGCTTCTCCTGCTCTGCAACCCTGGAGGTGGCCGGCCAGCTT
ATACACAAGAACCAGACCCGGGGAGCTTCGTGTCCTGTATGGCCCCCGACTGGACGAGAGGGATTGTCCGGGAAAC
TGGACGTGGCCAGAAAATTCCCAGCAGACTCCAATGTGCCAGGCTTGGGGGAACCCATTGCCCGAGCTCAAGTGT
CTAAAGGATGGCACTTTCCCACTGCCCATCGGGGAATCAGTGACTGTCACTCGAGATCTTGAGGGCACCTACCTC
TGTCGGGCCAGGAGCACTCAAGGGGAGGTCACCCGCGAGGTGACCGTGAATGTGCTCTCCCCCGGTATGAGATT
GTCATCATCACTGTGGTAGCAGCCGCAGTCATAATGGGCACTGCAGGCCTCAGCACGTACCTCTATAACCGCCAG
CGGAAGATCAAGAAATACAGACTACAACAGGCCCAAAAAGGGACCCCCATGAAACCGAACACACAAGCCACGCCT
CCC**TGA**ACCTATCCCGGGACAGGGCCTCTTCCTCGGCCTTCCCATATTGGTGGCAGTGGTGCCACACTGAACAGA
GTGGAAGACATATGCCATGCAGCTACACCTACCGGCCCTGGGACGCCGGAGGACAGGGCATTGTCCTCAGTCAGA
TACAACAGCATTTGGGGCCATGGTACCTGCACACCTAAAACACTAGGCCACGCATCTGATCTGTAGTCACATGAC
TAAGCCAAGAGGAAGGAGCAAGACTCAAGACATGATTGATGGATGTTAAAGTCTAGCCTGATGAGAGGGGAAGTG
GTGGGGGGAGACATAGCCCCACCATGAGGACATACAACTGGGAAATACTGAAACTTGCTGCCTATTGGGTATGCTG
AGGCCCACAGACTTACAGAAGAAGTGGCCCTCCATAGACATGTGTAGCATCAAAACACAAAGGCCCACACTTCCT
GACGGATGCCAGCTTGGGCACTGCTGTCTACTGACCCCAACCCTTGATGATATGTATTTATTCATTTGTTATTTT
ACCAGCTATTTATTGAGTGTCTTTTATGTAGGCTAAATGAACATAGGTCTCTGGCCTCACGGAGCTCCCAGTCCA
TGTCACATTCAAGGTCACCAGGTACAGTTGTACAGGTTGTACACTGCAGGAGAGTGCCTGGCAAAAAGATCAAAT
GGGGCTGGGACTTCTCATTGGCCAACCTGCCTTTCCCCAGAAGGAGTGATTTTTCTATCGGCACAAAAGCACTAT
ATGGACTGGTAATGGTTCACAGGTTCAGAGATTACCCAGTGAGGCCTTATTCCTCCCTTCCCCCCAAAACTGACA
CCTTTGTTAGCCACCTCCCCACCCACATACATTTCTGCCAGTGTTCACAATGACACTCAGCGGTCATGTCTGGAC
ATGAGTGCCCAGGGAATATGCCCAAGCTATGCCTTGTCCTCTTGTCCTGTTTGCATTTCACTGGGAGCTTGCACT
ATTGCAGCTCCAGTTTCCTGCAGTGATCAGGGTCCTGCAAGCAGTGGGGAAGGGGGCCAAGGTATTGGAGGACTC
CCTCCCAGCTTTGGAAGGGTCATCCGCGTGTGTGTGTGTGTGTATGTGTAGACAAGCTCTCGCTCTGTCACCCAG
GCTGGAGTGCAGTGGTGCAATCATGGTTCACTGCAGTCTTGACCTTTTGGGCTCAAGTGATCCTCCCACCTCAGC
CTCCTGAGTAGCTGGGACCATAGGCTCACAACACCACACCTGGCAAATTTGATTTTTTTTTTTTTTCAGAGAC
GGGGTCTCGCAACATTGCCCAGACTTCCTTTGTGTTAGTTAATAAAGCTTTCTCAACTGCC

FIGURE 236

MAPSSPRPALPALLVLLGALFPGPGNAQTSVSPSKVILPRGGSVLVTCSTSCDQPKLLGIETPLPKKELLLPGNN
RKVYELSNVQEDSQPMCYSNCPDGQSTAKTFLTVYWTPERVELAPLPSWQPVGKNLTLRCQVEGGAPRANLTVVL
LRGEKELKREPAVGEPAEVTTTVLVRRDHHGANFSCRTELDLRPQGLELFENTSAPYQLQTFVLPATPPQLVSPR
VLEVDTQGTVVCSLDGLFPVSEAQVHLALGDQRLNPTVTYGNDSFSAKASVSVTAEDEGTQRLTCAVILGNQSQE
TLQTVTIYSFPAPNVILTKPEVSEGTEVTVKCEAHPRAKVTLNGVPAQPLGPRAQLLLKATPEDNGRSFSCSATL
EVAGQLIHKNQTRELRVLYGPRLDERDCPGNWTWPENSQQTPMCQAWGNPLPELKCLKDGTFPLPIGESVTVTRD
LEGTYLCRARSTQGEVTREVTVNVLSPRYEIVIITVVAAVIMGTAGLSTYLYNRQRKIKKYRLQQAQKGTPMKP
NTQATPP

FIGURE 237

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GCGCCCCAGTCGACGCTGAGCTCCTCTGCTACTCAGAGTTGCAACCTCAGCCTCGCTATGGCTCCCAGCAGCCCC
CGGCCCGCGCTGCCCGCACTCCTGGTCCTGCTCGGGGCTCTGTTCCCAGGACCTGGCAATGCCCAGACATCTGTG
TCCCCCTCAAAAGTCATCCTGCCCCGGGGAGGCTCCGTGCTGGTGACATGCAGCACCTCCTGTGACCAGCCCAAG
TTGTTGGGCATAGAGACCCCGTTGCCTAAAAAGGAGTTGCTCCTGCCTGGGAACAACCGGAAGGTGTATGAACTG
AGCAATGTGCAAGAAGATAGCCAACCAATGTGCTATTCAAACTGCCCTGATGGGCAGTCAACAGCTAAAACCTTC
CTCACCGTGTACTGGACTCCAGAACGGGTGGAACTGGCACCCCTCCCCTCTTGGCAGCCAGTGGGCAAGAACCTT
ACCCTACGCTGCCAGGTGGAGGGTGGGGCACCCCGGGCCAACCTCACCGTGGTGCTGCTCCGTGGGGAGAAGGAG
CTGAAACGGGAGCCAGCTGTGGGGGAGCCCGCTGAGGTCACGACCACGGTGCTGGTGAGGAGAGATCACCATGGA
GCCAATTTCTCGTGCCGCACTGAACTGGACCTGCGGCCCCAAGGGCTGGAGCTGTTTGAGAACACCTCGGCCCCC
TACCAGCTCCAGACCTTTGTCCTGCCAGCGACTCCCCACAACTTGTCAGCCCCGGGTCCTAGAGGTGGACACG
CAGGGGACCGTGGTCTGTTCCCTGGACGGGCTGTTCCCAGTCTCGGAGGCCCAGGTCCACCTGGCACTGGGGGAC
CAGAGGTTGAACCCCACAGTCACCTATGGCAACGACTCCTTCTCGGCCAAGGCCTCAGTCAGTGTGACCGCAGAG
GACGAGGGCACCCAGCGGCTGACGTGTGCAGTAATACTGGGGAACCAGAGCCAGGAGACACTGCAGACAGTGACC
ATCTACAGCTTTCCGGCGCCCAACGTGATTCTGACGAAGCCAGAGGTCTCAGAAGGGACCGAGGTGACAGTGAAG
TGTGAGGCCCACCCTAGAGCCAAGGTGACGCTGAATGGGGTTCCAGCCCAGCCACTGGGCCCGAGGGCCCAGCTC
CTGCTGAAGGCCACCCCAGAGGACAACGGGCGCAGCTTCTCCTGCTCTGCAACCCTGGAGGTGGCCGGCCAGCTT
ATACACAAGAACCAGACCCGGGAGCTTCGTGTCCTGTATGGCCCCCGACTGGACGAGAGGGATTGTCCGGGAAAC
TGGACGTGGCCAGAAAATTCCCAGCAGACTCCAATGTGCCAGGCTTGGGGGAACCCATTGCCCGAGCTCAAGTGT
CTAAAGGATGGCACTTTCCCACTGCCCATCGGGGAATCAGTGACTGTCACTCGAGATCTTGAGGGCACCTACCTC
TGTCGGGCCAGGAGCACTCAAGGGGAGGTCACCCGCGAGGTGACCGTGAATGTGCTCTCCCCCCGGTATGAGATT
GTCATCATCACTGTGGTAGCAGCCGCAGTCATAATGGGCACTGCAGGCCTCAGCACGTACCTCTATAACCGCCAG
CGGAAGATCAAGAAATACAGACTACAACAGGCCCAAAAAGGGACCCCCATGAAACCGAACACACAAGCCACGCCT
CCCTGAACCTATCCCGGGACAGGGCCTCTTCCTCGGCCTTCCCATATTGGTGGCAGTGGTGCCACACTGAACAGA
GTGGAAGACATATGCCATGCAGCTACACCTACCGGCCCTGGGACGCCGGAGGACAGGGCATTGTCCTCAGTCAGA
TACAACAGCATTTGGGGCCATGGTACCTGCACACCTAAAACACTAGGCCACGCATCTGATCTGTAGTCACATGAC
TAAGCCAAGAGGAAGGAGCAAGACTCAAGACATGATTGATGGATGTTAAAGTCTAGCCTGATGAGAGGGGAAGTG
GTGGGGGAGACATAGCCCCACCATGAGGACATACAACTGGGAAATACTGAAACTTGCTGCCTATTGGGTATGCTG
AGGCCCACAGACTTACAGAAGAAGTGGCCCTCCATAGACATGTGTAGCATCAAAACACAAAGGCCCACACTTCCT
GACGGATGCCAGCTTGGGCACTGCTGTCTACTGACCCCAACCCTTGATGATATGTATTTATTCATTTGTTATTTT
ACCAGCTATTTATTGAGTGTCTTTTATGTAGGCTAAATGAACATAGGTCTCTGGCCTCACGGAGCTCCCAGTCCA
TGTCACATTCAAGGTCACCAGGTACAGTTGTACAGGTTGTACACTGCAGGAGAGTGCCTGGCAAAAAGATCAAAT
GGGGCTGGGACTTCTCATTGGCCAACCTGCCTTTCCCCAGAAGGAGTGATTTTTCTATCGGCACAAAAGCACTAT
ATGGACTGGTAATGGTTCACAGGTTCAGAGATTACCCAGTGAGGCCTTATTCCTCCCTTCCCCCCAAAACTGACA
CCTTTGTTAGCCACCTCCCCACCCACATACATTTCTGCCAGTGTTCACAATGACACTCAGCGGTCATGTCTGGAC
ATGAGTGCCCAGGGAATATGCCCAAGCTATGCCTTGTCCTCTTGTCCTGTTTGCATTTCACTGGGAGCTTGCACT
ATTGCAGCTCCAGTTTCCTGCAGTGATCAGGGTCCTGCAAGCAGTGGGGAAGGGGGCCAAGGTATTGGAGGACTC
CCTCCCAGCTTTGGAAGGGTCATCCGCGTGTGTGTGTGTGTGTATGTGTAGACAAGCTCTCGCTCTGTCACCCAG
GCTGGAGTGCAGTGGTGCAATCATGGTTCACTGCAGTCTTGACCTTTGGGCTCAAGTGATCCTCCCACCTCAGC
CTCCTGAGTAGCTGGGACCATAGGCTCACAACACCACACCTGGCAAATTTGATTTTTTTTTTTTTTCAGAGAC
GGGGTCTCGCAACATTGCCCAGACTTCCTTTGTGTTAGTTAATAAAGCTTTCTCAACTGCC
```

FIGURE 238

MAPSSPRPALPALLVLLGALFPGPGNAQTSVSPSKVILPRGGSVLVTCSTSCDQPKLLGIETPLPKKELLLPGNN
RKVYELSNVQEDSQPMCYSNCPDGQSTAKTFLTVYWTPERVELAPLPSWQPVGKNLTLRCQVEGGAPRANLTVVL
LRGEKELKREPAVGEPAEVTTTVLVRRDHHGANFSCRTELDLRPQGLELFENTSAPYQLQTFVLPATPPQLVSPR
VLEVDTQGTVVCSLDGLFPVSEAQVHLALGDQRLNPTVTYGNDSFSAKASVSVTAEDEGTQRLTCAVILGNQSQE
TLQTVTIYSFPAPNVILTKPEVSEGTEVTVKCEAHPRAKVTLNGVPAQPLGPRAQLLLKATPEDNGRSFSCSATL
EVAGQLIHKNQTRELRVLYGPRLDERDCPGNWTWPENSQQTPMCQAWGNPLPELKCLKDGTFPLPIGESVTVTRD
LEGTYLCRARSTQGEVTREVTVNVLSPRYEIVIITVVAAAVIMGTAGLSTYLNRQRKIKKYRLQQAQKGTPMKP
NTQATPP

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FIGURE 239

CTTCGGTCCTGCTGTAGTGCCTTCTGCGCCAGGCCCGGTTCAATCAGCGGCCACAACTGTCTAGGGCTCAGACAC
CACCAGCCAATGAGGGAGGGCACGTGGAGCCGCGTCTGGGCTCGCGGCTCCTGACC**AATG**GGGAAGTGGCATGTG
GGAGGGCGCCGGGGTTCCCCCCGCCAATGGGGAGCTACGGCGCGCGGCCGGGACTTGGAGGCGGTGCGGCGCGGC
GGGTGCGGTTCAGTCGGTCGGCGGCGGCAGCGGAGGAGGAGGAGGAGGAGGAGGATGAGGAGGATGAGGAGGATG
TGGGCCACGCAGGGGCTGGCGGTGCGCGTGGCTCTGAGCGTGCTGCCGGGCAGCCGGGCGCTGCGGCCGGGCGAC
TGCGAAGTTTGTATTTCTTATCTGGGAAGATTTTACCAGGACCTCAAAGACAGAGATGTCACATTCTCACCAGCC
ACTATTGAAAACGAACTTATAAAGTTCTGCCGGGAAGCAAGAGGCAAAGAGAATCGGTTGTGCTACTATATCGGG
GCCACAGATGATGCAGCCACCAAAATCATCAATGAGGTATCAAAGCCTCTGGCCCACCACATCCCTGTGGAGAAG
ATCTGTGAGAAGCTTAAGAAGAAGGACAGCCAGATATGTGAGCTTAAGTATGACAAGCAGATCGACCTGAGCACA
GTGGACCTGAAGAAGCTCCGAGTTAAAGAGCTGAAGAAGATTCTGGATGACTGGGGGGAGACATGCAAAGGCTGT
GCAGAAAGTCTGACTACATCCGGAAGATAAATGAACTGATGCCTAAATATGCCCCCAAGGCAGCCAGTGCACCG
ACCGATTTG**TAG**TCTGCTCAATCTCTGTTGCACCTGAGGGGGAAAAAACAGTTCAACTGCTTACTCCCAAAACAG
CCTTTTTGTAATTTATTTTTTAAGTGGGCTCCTGACAATACTGTATCAGATGTGAAGCCTGGAGCTTTCCTGATG
ATGCTGGCCCTACAGTACCCCCATGAGGGGATTCCCTTCCTTCTGTTGCTGGTGTACTCTAGGACTTCAAAGTGT
GTCTGGGATTTTTTTATTAAAGAAAAAAATTTCTAGCTGTCAAAAAAAAAA

FIGURE 240

MGKWHVGGRRGSPRQWGATARGRDLEAVRRGGCGSVGRRRQRRRRRRRRMRRMRRMWATQGLAVRVALSVLPGSR
ALRPGDCEVCISYLGRFYQDLKDRDVTFSPATIENELIKFCREARGKENRLCYYIGATDDAATKIINEVSKPLAH
HIPVEKICEKLKKKDSQICELKYDKQIDLSTVDLKKLRVKELKKILDDWGETCKGCAEKSDYIRKINELMPKYAP
KAASAPTDL

FIGURE 241

CGGAGCCGCCCGCTGAGGTCAGAAGGAGGCGTCTGCGCTGATCGGGTCCGCCGCGCGCCAGAGCCAGAGTCGCAG
CCGAGGGGAGCCGGGGCCGGAGCCCGAGCCCGAGCCGAGCCGGAGCCCGAGCGAGCGGCGGAGACCGTGCCCCCG
CCTCGGCCCCGCGCCGCCGCGGCCAGGCCCGGC**ATG**GAGGAGGAGTGCCGGGTGCTCTCCATACAGAGCCACGTC
ATCCGCGGCTACGTGGGCAACCGGGCGGCCACGTTCCCGCTGCAGGTTTTGGGATTTGAGATTGACGCGGTGAAC
TCTGTCCAGTTTTCAAACCACACAGGCTATGCCCACTGGAAGGGCCAAGTGCTGAATTCAGATGAGCTCCAGGAG
TTGTACGAAGGCCTGAGGCTGAACAACATGAATAAATATGACTACGTGCTCACAGGTTATACGAGGGACAAGTCG
TTCCTGGCCATGGTGGTGGACATTGTGCAGGAGCTGAAGCAGCAGAACCCCAGGCTGGTGTACGTGTGTGATCCA
GTCTTGGGTGACAAGTGGGACGGCGAAGGCTCGATGTACGTCCCGGAGGACCTCCTTCCCGTCTACAAAGAAAAA
GTGGTGCCGCTTGCAGACATTATCACGCCCAACCAGTTTGAGGCCGAGTTACTGAGTGGCCGGAAGATCCACAGC
CAGGAGGAAGCCTTGCGGGTGATGGACATGCTGCACTCTATGGGCCCCGACACCGTGGTCATCACCAGCTCCGAC
CTGCCCTCCCCGCAGGGCAGCAACTACCTGATTGTGCTGGGGAGTCAGAGGAGGAGGAATCCCGCTGGCTCCGTG
GTGATGGAACGCATCCGGATGGACATTCGCAAAGTGGACGCCGTCTTTGTGGGCACTGGGGACCTGTTTGCTGCC
ATGCTCCTGGCGTGGACACACAAGCACCCCAATAACCTCAAGGTGGCCTGTGAGAAGACCGTGTCTACCTTGCAC
CACGTTCTGCAGAGGACCATCCAGTGTGCAAAAGCCCAGGCCGGGGAAGGAGTGAGGCCCAGCCCCATGCAGCTG
GAGCTGCGGATGGTGCAGAGCAAAAGGGACATCGAGGACCCAGAGATCGTCGTCCAGGCCACGGTGCTG**TGA**GGG
CCCCGCCGCTTGCCCGTGACACGCAGCGCGTTGGTGTCTCCGTGTTTGTCCCTGTGAAAACATGTAACGTCTGCC
TTAGAGCCATGACCGAAACTTGATATTTTTTTCTTTCATGAGTGTCCGGCATCTGCTGGTCTTCATTGTGAAACG
TGCCAGTCGTGCTTTGTGAAAAATAACAAAGTGGTCACAAAAAAAAAAAAAAAAAA

FIGURE 242

MEEECRVLSIQSHVIRGYVGNRAATFPLQVLGFEIDAVNSVQFSNHTGYAHWKGQVLNSDELQELYEGLRLNNMN
KYDYVLTGYTRDKSFLAMVVDIVQELKQQNPRLVYVCDPVLGDKWDGEGSMYVPEDLLPVYKEKVVPLADIITPN
QFEAELLSGRKIHSQEEALRVMDMLHSMGPDTVVITSSDLPSPQGSNYLIVLGSQRRRNPAGSVVMERIRMDIRK
VDAVFVGTGDLFAAMLLAWTHKHPNNLKVACEKTVSTLHHVLQRTIQCAKAQAGEGVRPSPMQLELRMVQSKRDI
EDPEIVVQATVL

FIGURE 243

GAATTCCCCCCCCCCCCCCAGTGCTCCGCGCGCTCTTGACGTCCGGAGCCCCTGGAGTAGGCGCTTCCGGCCATT
CATACTGCAGTCGGTCAGTGTTCGGTTGAAGGATTCTGTGTGCTGTCGGACCCAGAGGGTGACGGCGCCGCTAGG
ATGAAGCTCGTGAGATTTTTGATGAAATTGAGTCATGAAACTGTAACCATTGAATTGAAGAACGGAACACAGGTC
CATGGAACAATCACAGGTGTGGATGTCAGCATGAATACACATCTTAAAGCTGTGAAAATGACCCTGAAGAACAGA
GAACCTGTACAGCTGGAAACGCTGAGTATTCGAGGAAATAACATTCGGTATTTTATTCTACCAGACAGTTTACCT
CTGGATACACTACTTGTGGATGTTGAACCTAAGGTGAAATCTAAGAAAAGGGAAGCTGTTGCAGGAAGAGGCAGA
GGAAGAGGAAGAGGAAGAGGACGTGGCCGTGGCAGAGGAAGAGGGGGTCCTAGGCGA**TAA**TGTCTCTCAAGATTT
CAAAGTCATATGAGATTTGGGATATTTTTTGTACAGGTTGTGTTTGTTTATGTCAGTTTTTAATAAACATAAATG
TGGGACAGAGCTGTCTATTTAGTATATCAAAGTTTTAGTAGTTTCCTCCACATTCACGAAATTACCACAGTGAGA
GCTAAGCATTTCTACTGGGCAGTTTCATTTTTAGTTGATCAGGTTTTAAGTTTTTGAACTAAAATTTTTCTTTTT
CTTTTTATGATGAATAAGGTTAAAATAAAAGCCTTAGACAAATTAAATTTGGCAGAGTTTAATTGAGCAAAGGAC
AATTCACAAATCAGGTAGCCCCTGAACCATAATAGGCTCAGAGGCTTCAGCCCAGCTGCATAGTTGAAGATTTAT
GGACAGAAGGAAAGTGATGTATGGAAAATGGAAGTGAGATACAGCAACAGCCGGATTAGTTACAGTTCAGCGTTT
GCCTTATTTGAATATGGTTTGAACAGTTCGCTGTCTTTGGTTGGCTGAAACTTAGTGATTGCCACAAGAGTAGGG
TACCGTCTGTTTACACGTCCAGTTAGGCTACAGTTCTATGTACTGAGAAACCTTTAAGCTGAACTTGAGATATGT
AAAGAGACTTTAGGCTAAACTTAACAATATATATAGGAATATATCCCTTCTACTTCACATGCACTGAATATGCAT
TTTATTGCTTTACTCTTCATTCTGTGGCACCTACCCACAGGGGAAGTAAGAAGTTTGTTTTGGTATTTCGGAAAC
TAAAGTCCTTATGGGATGGGGTCTAGAATTGATTCTCCTTTCCTGAGTTTTACTCCACGGAGTCTTAGGTACCTG
GTAAAAAGTTGTCTTCTAAATTAAGGGTCATTGCTTTGTTGTCTAGCTGCTAATGTCTTACTTTTGTTTCTTTTG
CTTTTTAATCAGTTCTTAATAGGATATAGTTTTATGTTTTCCAAGTTATAACTTGGAGTTAATGGTCACTAGATT
ATCAGTTATGAGCAGTGTTAAAATCTCCTATTAATGTGTAATGTACCTGTCAGTGCCTCCTTTATTAAGGGGTTC
TTTGAGAATAAAAGAGAAAAGACCTACTTTATTTGACAGCAAAAAAAAAAAGGAATTC

FIGURE 244

MKLVRFLMKLSHETVTIELKNGTQVHGTITGVDVSMNTHLKAVKMTLKNREPVQLETLSIRGNNIRYFILPDSLP
LDTLLVDVEPKVKSKKREAVAGRGRGRGRGRGRGRGRGGPRR

FIGURE 245

CGACCACCCGGCCTCGGCCAATAAGCGCCGCCCTCTCGCCCCCGTGTTACTGGGTAGAAGAAAACAAAAACAAAC
AGAGCGAGAAGGGCCAGAGACTCTCCGAGGCGGCGGCAGAGACAGAAGAGCGGGGTCGGGGCCGGCTGACCAGGA
ACCTGGGCGAGCAGCGGCGGGGGCCCGAGGGATTCTGAAGGAAGATTTCCATTAGGTAATTTGTTTAATCAGTGC
AAGCGAAATTAAGGGAAA**ATG**GATGTAGAAAATGAGCAGATACTGAATGTAAACCCTGCAGATCCTGATAACTTA
AGTGACTCTCTCTTTTCCGGTGATGAAGAAATGCTGGGACTGAGGAAATAAAGAATGAAATAAATGGAAATTGG
ATTTCAGCATCCTCCATTAACGAAGCTAGAATTAATGCCAAGGCAAAAAGGCGACTAAGGAAAAACTCATCCCGG
GACTCTGGCAGAGGCGATTCGGTCAGCGACAGTGGGAGTGACGCCCTTAGAAGTGGATTAACTGTGCCAACCAGT
CCAAAGGGAAGGTTGCTGGATAGGCGATCCAGATCTGGGAAAGGAAGGGGACTACCAAAGAAAGGTGGTGCAGGA
GGCAAAGGTGTCTGGGGTACACCTGGACAGGTGTATGATGTGGAGGAGGTGGATGTGAAAGATCCTAACTATGAT
GATGACCAGGAGAACTGTGTTTATGAAACTGTAGTTTTGCCTTTGGATGAAAGGGCATTTGAGAAGACTTTAACA
CCAATCATACAGGAATATTTTGAGCATGGAGATACTAATGAAGTTGCGGAAATGTTAAGAGATTTAAATCTTGGT
GAAATGAAAAGTGGAGTACCAGTGTTGGCAGTATCCTTAGCATTGGAGGGGAAGGCTAGTCATAGAGAGATGACA
TCTAAGCTTCTTTCTGACCTTTGTGGGACAGTAATGAGCACAACTGATGTGGAAAAATCATTTGATAAATTGTTG
AAAGATCTACCTGAATTAGCACTGGATACTCCTAGAGCACCACAGTTGGTGGGCCAGTTTATTGCTAGAGCTGTT
GGAGATGGAATTTTATGTAATACCTATATTGATAGTTACAAAGGAACTGTAGATTGTGTGCAGGCTAGAGCTGCT
CTGGATAAGGCTACCGTGCTTCTGAGTATGTCTAAAGGTGGAAAGCGTAAAGATAGTGTGTGGGGCTCTGGAGGT
GGGCAGCAATCTGTCAATCACCTTGTTAAAGAGATTGATATGCTGCTGAAAGAATATTTACTCTCTGGAGACATA
TCTGAAGCTGAACATTGCCTTAAGGAACTGGAAGTACCTCATTTTCACCATGAGCTTGTATATGAAGCTATTATA
ATGGTTTTAGAGTCAACTGGAGAAAGTACATTTAAGATGATTTTGGATTTATTAAAGTCCCTTTGGAAGTCTTCT
ACCATTACTGTAGACCAAATGAAAAGAGGTTATGAGAGAATTTACAATGAAATTCCGGACATTAATCTGGATGTC
CCACATTCATACTCTGTGCTGGAGCGGTTTGTAGAAGAATGTTTTCAGGCTGGAATAATTTCCAAACAACTCAGA
GATCTTTGTCCTTCAAGGGGCAGAAAGCGTTTTGTAAGCGAAGGAGATGGAGGTCGTCTTAAACCAGAGAGCTAC
TGAATATAAGAACTCTTGCAGTCTTAGATGTTATAAAAATATATCTGAATTGTAAGAGTTGTTAGCACAAGTT
TTTTTTTTTTTTTTTTAAGCACTTGTTTTGGGTACAAGGCATTTCTGACATTTTATAAACCTACATTTAAGGG
GAATTTTTAAAGGAAATGTTTTTTCTTTTTTTTTTGTTTTCGAGGGGGCAAGGAGGGACAGAAAAGTAACCTCT
TCTTAAGTGGAATATTCTAATAAGCTACCTTTTGTAAGTGCCATGTTTATTATCTAATCATTCCAAGTTTTGCAT
TGATGTCTGACTGCCACTCCTTTCTTTCAAGGACAGTGTTTTTGTAGTAAAATCACTGGTTTATACAAAGCTTT
ATTTAGGGGGTAAAGTTAAGCTGCTAAAACCCCATGTTGGCTGCTGCTGTTGAGATACTGTGCTTTGGGAGTAAA
AAAAGAAAGTTATTTCTTTGTCTTAAAGAATTTTTAAAAAATTAGTCATGAGACTTATTCATCTTTCCAGGGAAC
ATACTGATTGGTCTTAAAAGACTAGACAGTTAAGTAAAAGGTGGCTGGAACATCTATTTTTCTACAAAACTGGAA
AAATGAACCTGGTTCTAGAAGAATGTACACCAAAATAAACATGTGAAGCAGTAAAAAAAAAAAAAAAA

FIGURE 246

MDVENEQILNVNPADPDNLSDSLFSGDEENAGTEEIKNEINGNWISASSINEARINAKAKRRLRKNSSRDSGRGD
SVSDSGSDALRSGLTVPTSPKGRLLDRRSRSGKGRGLPKKGGAGGKGVWGTPGQVYDVEEVDVKDPNYDDDQENC
VYETVVLPLDERAFEKTLTPIIQEYFEHGDTNEVAEMLRDLNLGEMKSGVPVLAVSLALEGKASHREMTSKLLSD
LCGTVMSTTDVEKSFDKLLKDLPELALDTPRAPQLVGQFIARAVGDGILCNTYIDSYKGTVDCVQARAALDKATV
LLSMSKGGKRKDSVWGSGGGQQSVNHLVKEIDMLLKEYLLSGDISEAEHCLKELEVPHFHHELVYEAIIMVLEST
GESTFKMILDLLKSLWKSSTITVDQMKRGYERIYNEIPDINLDVPHSYSVLERFVEECFQAGIISKQLRDLCPSR
GRKRFVSEGDGGRLKPESY

FIGURE 247

CGACCACCCGGCCTCGGCCAATAAGCGCCGCCCTCTCGCCCCCGTGTTACTGGGTAGAAGAAAACAAAAACAAAC
AGAGCGAGAAGGGCCAGAGACTCTCCGAGGCGGCGGCAGAGACAGAAGAGCGGGGTCGGGGCCGGCTGACCAGGA
ACCTGGGCGAGCAGCGGCGGGGGCCCGAGGGATTCTGAAGGAAGATTTCCATTAGGTAATTTGTTTAATCAGTGC
AAGCGAAATTAAGGGAAAATGGATGTAGAAAATGAGCAGATACTGAATGTAAACCCTGCAGATCCTGATAACTTA
AGTGACTCTCTCTTTTCCGGTGATGAAGAAATGCTGGGACTGAGGAAATAAAGAATGAAATAAATGGAAATTGG
ATTTCAGCATCCTCCATTAACGAAGCTAGAATTAATGCCAAGGCAAAAAGGCGACTAAGGAAAAACTCATCCCGG
GACTCTGGCAGAGGCGATTCGGTCAGCGACAGTGGGAGTGACGCCCTTAGAAGTGGATTAACTGTGCCAACCAGT
CCAAAGGGAAGGTTGCTGGATAGGCGATCCAGATCTGGGAAAGGAAGGGGACTACCAAAGAAAGGTGGTGCAGGA
GGCAAAGGTGTCTGGGGTACACCTGGACAGGTGTATGATGTGGAGGAGGTGGATGTGAAAGATCCTAACTATGAT
GATGACCAGGAGAACTGTGTTTATGAAACTGTAGTTTTGCCTTTGGATGAAAGGGCATTTGAGAAGACTTTAACA
CCAATCATACAGGAATATTTTGAGCATGGAGATACTAATGAAGTTGCGGAAATGTTAAGAGATTTAAATCTTGGT
GAAATGAAAGTGGAGTACCAGTGTTGGCAGTATCCTTAGCATTGGAGGGGAAGGCTAGTCATAGAGAGATGACA
TCTAAGCTTCTTTCTGACCTTTGTGGGACAGTAATGAGCACAACTGATGTGGAAAAATCATTTGATAAATTGTTG
AAAGATCTACCTGAATTAGCACTGGATACTCCTAGAGCACCACAGTTGGTGGGCCAGTTTATTGCTAGAGCTGTT
GGAGATGGAATTTTATGTAATACCTATATTGATAGTTACAAAGGAACTGTAGATTGTGTGCAGGCTAGAGCTGCT
CTGGATAAGGCTACCGTGCTTCTGAGTATGTCTAAAGGTGGAAAGCGTAAAGATAGTGTGTGGGGCTCTGGAGGT
GGGCAGCAATCTGTCAATCACCTTGTTAAAGAGATTGATATGCTGCTGAAAGAATATTTACTCTCTGGAGACATA
TCTGAAGCTGAACATTGCCTTAAGGAACTGGAAGTACCTCATTTTCACCATGAGCTTGTATATGAAGCTATTATA
ATGGTTTTAGAGTCAACTGGAGAAAGTACATTTAAGATGATTTTGGATTTATTAAAGTCCCTTTGGAAGTCTTCT
ACCATTACTGTAGACCAAATGAAAAGAGGTTATGAGAGAATTTACAATGAAATTCCGGACATTAATCTGGATGTC
CCACATTCATACTCTGTGCTGGAGCGGTTTGTAGAAGAATGTTTTCAGGCTGGAATAATTTCCAAACAACTCAGA
GATCTTTGTCCTTCAAGGGGCAGAAAGCGTTTTGTAAGCGAAGGAGATGGAGGTCGTCTTAAACCAGAGAGCTAC
TGAATATAAGAACTCTTGCAGTCTTAGATGTTATAAAAATATATATCTGAATTGTAAGAGTTGTTAGCACAAGTT
TTTTTTTTTTTTTTTTAAGCACTTGTTTTGGGTACAAGGCATTTCTGACATTTTATAAACCTACATTTAAGGG
GAATTTTTAAAGGAAATGTTTTTTCTTTTTTTTTGTTTTTCGAGGGGGCAAGGAGGGACAGAAAAGTAACCTCT
TCTTAAGTGGAATATTCTAATAAGCTACCTTTTGTAAGTGCCATGTTTATTATCTAATCATTCCAAGTTTTGCAT
TGATGTCTGACTGCCACTCCTTTCTTTCAAGGACAGTGTTTTTTGTAGTAAAATCACTGGTTTATACAAAGCTTT
ATTTAGGGGGTAAAGTTAAGCTGCTAAAACCCCATGTTGGCTGCTGCTGTTGAGATACTGTGCTTTGGGAGTAAA
AAAAGAAAGTTATTTCTTTGTCTTAAAGAATTTTTAAAAAATTAGTCATGAGACTTATTCATCTTTCCAGGGAAC
ATACTGATTGGTCTTAAAAGACTAGACAGTTAAGTAAAAGGTGGCTGGAACATCTATTTTTCTACAAAACTGGAA
AAATGAACCTGGTTCTAGAAGAATGTACACCAAAATAAACATGTGAAGCAGTAAAAAAAAAAAAAAAAA

FIGURE 248

MTKYPDNLSDSLFSGDEENAGTEEIKNEINGNWISASSINEARINAKAKRRLRKNSSRDSGRGDSVSDSGSDALR
SGLTVPTSPKGRLLDRRSRSGKGRGLPKKGGAGGKGVWGTPGQVYDVEEVDVKDPNYDDDQENCVYETVVLPLDE
RAFEKTLTPIIQEYFEHGDTNEVAEMLRDLNLGEMKSGVPVLAVSLALEGKASHREMTSKLLSDLCGTVMSTTDV
EKSFDKLLKDLPELALDTPRAPQLVGQFIARAVGDGILCNTYIDSYKGTVDCVQARAALDKATVLLSMSKGGKRK
DSVWGSGGGQQSVNHLVKEIDMLLKEYLLSGDISEAEHCLKELEVPHFHHELVYEAIIMVLESTGESTFKMILDL
LKSLWKSSTITVDQMKRGYERIYNEIPDINLDVPHSYSVLERFVEECFQAGIISKQLRDLCPSRGRKRFVSEGDG
GRLKPESY

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FIGURE 249

CGGAGCCAGCGTGGGAGGCCGCTGCCGTCGCGCGCCTTGGTTTTTCTGTTCCTTTTTTTTTTTTTTTTTAACTT
CCTGCCTATCACACGCAGCCATCAGCCCACAAAGAC**ATG**ACTACCAACGCGGGCCCCTTGCACCCATACTGGCCT
CAGCACCTAAGACTGGACAACTTTGTACCTAATGACCGCCCCACCTGGCATATACTGGCTGGCCTCTTCTCTGTC
ACAGGGGTCTTAGTCGTGACCACATGGCTGTTGTCAGGTCGTGCTGCGGTTGTCCCATTGGGGACTTGGCGGCGA
CTGTCCCTGTGCTGGTTTGCAGTGTGTGGGTTCATTCACCTGGTGATCGAGGGCTGGTTCGTTCTCTACTACGAA
GACCTGCTTGGAGACCAAGCCTTCTTATCTCAACTCTGGAAAGAGTATGCCAAGGGAGACAGCCGATACATCCTG
GGTGACAACTTCACAGTGTGCATGGAAACCATCACAGCTTGCCTGTGGGGACCACTCAGCCTGTGGGTGGTGATC
GCCTTTCTCCGCCAGCATCCCCTCCGCTTCATTCTACAGCTTGTGGTCTCTGTGGGCCAGATCTATGGGGATGTG
CTCTACTTCCTGACAGAGCACCGCGACGGATTCCAGCACGGAGAGCTGGGCCACCCTCTCTACTTCTGGTTTTAC
TTTGTCTTCATGAATGCCCTGTGGCTGGTGCTGCCTGGAGTCCTTGTGCTTGATGCTGTGAAGCACCTCACTCAT
GCCCAGAGCACGCTGGATGCCAAGGCCACAAAAGCCAAGAGCAAGAAGAAC**TGA**GGAGTGGTGGACCAGGCTCGA
ACACTGGCCGAGGAGGAGCTCTCTGCCTGCCAGAAGAGTCTAGTCCTGCTCCCACAGTTTGGAGGGACAAAGCTA
ATTGATCTGTCACACTCAGGCTCATGGGCAGGCACAAGAAGGGGAATAAAGGGGCTGTGTGAAGGCACTGCTGGG
AGCCATTAGAACACAGATACAAGAGAAGCCAGGAGGTCTATGATGGTGACGATTTTTAAAATCAGGAAATAAAAG
ATCTTGACTCTAAAAAAAAAAAA

FIGURE 250

MTTNAGPLHPYWPQHLRLDNFVPNDRPTWHILAGLFSVTGVLVVTTWLLSGRAAVVPLGTWRRLSLCWFAVCGFI
HLVIEGWFVLYYEDLLGDQAFLSQLWKEYAKGDSRYILGDNFTVCMETITACLWGPLSLWVVIAFLRQHPLRFIL
QLVVSVGQIYGDVLYFLTEHRDGFQHGELGHPLYFWFYFVFMNALWLVLPGVLVLDAVKHLTHAQSTLDAKATKA
KSKKN

FIGURE 251A

CGTGCGGCGGTGGGCTGGTCTTCCGCGGCCGGCGTTGCGCCGCGGCGGAGGGTGGGCGCGCGGGGAGCGGGATGG
AGCTGGGGCGACCCTTGCTGGAGGTACTGGCCTCAGCCCTTTCTCCCGCTTCCCCACCCCTCTTACCCCCAGATT
ACATTCTCTGTGTGGTGTCTTTACTGCAGATGAAGGATTTGGGGGCAGAGCACTTGGCAGGTCATGAAGGGGTCC
AACTTCTCGGGTTGTTGAACGTCTACCTGGAACAAGAAGAGAGATTCCAACCTCGAGAAAAAGGGCTGAGTTTGA
TTGAGGCTACCCCGGAGAATGATAACACTTTGTGTCCAGGATTGAGAAATGCCAAAGTTGAAGATTTAAGGAGTT
TAGCCAACTTTTTTGGATCTTGCACTGAAACTTTTGTCCTGGCTGTCAATATTTTGGACAGGTTCTTGGCTCTTA
TGAAGGTGAAACCTAAACATTTGTCTTGCATTGGAGTCTGTTCTTTTTGCTGGCTGCTAGAATAGTTGAAGAAG
ACTGCAATATTCCATCCACTCATGATGTGATCCGGATTAGTCAGTGTAAATGTACTGCTTCTGACATAAAACGGA
TGGAAAAAATAATTTCAGAAAAATTGCACTATGAATTGGAAGCTACTACTGCCTTAAACTTTTTGCACTTATACC
ATACTATTATACTTTGTCATACTTCAGAAAGGAAAGAAATACTGAGCCTTGATAAACTAGAAGCTCAGCTGAAAG
CTTGCAACTGCCGACTCATCTTTTCAAAAGCAAAACCATCTGTATTAGCCTTGTGCCTTCTCAATTTGGAAGTGG
AAACTTTGAAATCTGTTGAATTACTGGAAATTCTCTTGCTAGTTAAAAAACATTCCAAGATTAATGACACTGAGT
TCTTCTACTGGAGAGAGTTGGTTTCTAAATGCCTAGCCGAGTATTCTTCTCCTGAATGTTGCAAACCAGATCTTA
AGAAGTTGGTTTGGATCGTTTCAAGGCGCACAGCCCAGAACCTCCACAACAGCTACTATAGTGTTCCTGAGCTGC
CAACGATACCTGAGGGGGGTTGTTTTGATGAAAGTGAAAGTGAGGACTCTTGTGAAGATATGAGTTGTGGAGAGG
AGAGTCTCAGCAGCTCTCCTCCCAGTGATCAAGAGTGCACCTTCTTTTTCAACTTCAAAGTGGCACAAACACTGT
GCTTTCCATCT**TAG**AAATCTGATTGTTCTGTCAGAATTTATATTTACAGGTTTCAAAGCAATAAATGGGGGAATA
GGTAGTTTCCTGGTTTAGCCCCCATCTAGTCAGGAATTAATATACTGGAATACCTACCTTCTATTTGTTATTCAG
ATCAGATCTGGCCTATTTTCATATTTATCCTAAGCCATCAAATGGGGTAGTGCCTCTTAAACCATTAACAGTACT
TTAGACATTGGCACTTTATTTTTCTCGTAGATCTTTAGCTACTTTGGGGAGGAGGGAAGGTGCTGATACCTTCAA
TTTGTTACTTTTCAAGATTTTTAAAAATAACTAGTGTAGCTTATCTTAAACATTTTATAAAACCTTCAGATGTCT
TTAAGCAGATTGGAAGTATGCAAGTGCTTCCTTAGCAGGGACAGTGGATAATCCTTAATGGTTTATCATAGATTT
CACCCTCCCCCCTTCTCAGAAGAGTGAGTATGCTCTTAAATGTCAAACACATTTTTGTTGTTTTGTTTTTAAAT
GATCAGTGTCTATTTGATGTGATGCAGATCTTATAAATTTGGGAATTATAATATTGACATTTCTGTGATTTTTAT
ATATGTAATGTCTTAATTGAGATTTCTGTTAAGGCAGAAATAATTAGGCTAGGGCTCTTAGTTTTCATTCCTATT
GCCCAAGTATTGTCAAACTATGGTATTATTTTAATGTTACTTTAAAAATCCATAATCTGCTAGTTTTGCATGTAC
TTATATGAAAACAGTGCAGTAAGTTGAAAACTCAGTATCTATGGAATTGATAAATGTTGATCTGGTGTAGTATAT
TTTATCGCATTTTCTTATATTAAAAAATGTCTGCATGATTACATTTTATTTCCTTTGTAATTTACATTTCAGAAT
AGTGTATTGCTATATGGGTGCCAAGATTGAATATGAAGAACCCGAGTGTTTGTAGTATTATAGTTTTAAGCAAAT
CTGTGTGGTGATACAGCCATAAGAATGGGGCTTATATAAACTCTGTACATGTAAGATTTTGTACAGAGAATTTTT
AACTTTATAAATTGTATATGAACATGTAAATCTTTTAAAATGTACATAAAATACTGTATTTTTTTACCTTGTGTG
TGATAGTCTAGTCATTGCATGTAAATATAATTTATTATGTATTCTGTAGTATAAATCATACATTGATGACTTACA
TTTTTACTGGTAAGTCAACATCCGTTGGATGTTTTCTGAAGTGGCTCTTTTTGAAGTGATAATAGATTGTAATTC
AAAATAAAATTATTAATGAATTCTCCTTGTTTGGGATCACATCTTAATTTTTAATCTGTTAAAAGTTCTTGATGT
ATTTTAATGAGAAGACTTTAGGTGAGGCTACAGTGATTCCAGAGTGAGCCTTCTAACTGGCTAGCAGAAGTTCTC
TAGGTTTGGCATCTGTGCCTTGGAGATACTGAAAGAGAATCTGTCATTTGACAATTGACCTCTTTGTGGGATGGA
CTCATTAAGTATGCTCTCAGAGACTGGTATATTACCAGAATGCCTATTAATTTTCAGTGAGAGGCAACAGGTATT
AAGTAGAACAGAATGCTCAGGTTGGCAGATTAGAACGATCTTTCAGGAGACAAAGCAAGTTTTAATCAGTTGTTT
GGTTAATAAGTATGGGGTGTTCGCTGTGATAGGGCCCCGCCAGCTTCTGGCTCTTGTGGACCTCAAAAGTATCAG
GTGGTTTTGCAAGTGGTGGTCCTTTCCCCTGCCCCACCCCAATAGGTTCCCCATCTGTCTAGTTTGATTTTTGTA
GACCTTTGTTTTCTCTAGTTAGAAAATCAGGTACACTGAATATGGTTTTCATGTAACACCTCTTCTCTGGAGATA
GGGGTATGTTTTCCTACCCTTCTAGTGGAGAATCCTACTTGAGGATGACCTTTCCTCTCTTACTAAATAATATTA
GTAAATAGTGGGCAATATATTCTGCTTTCAGATTTTGATTTGTTGAGATGTAAAAGTTGTTTGGGGCTTACCAAA
TCTCAAGACTCTCTTTAGCTCCTGCAGGATTGTATTGCTTTTCTTACTGGATATTTTTCCTGGGTAAGCATCTTT
GTGGCTTCATCTCTTCCCCCTGTGGTTTTCAGTGTATTTAGTCGAGACCTCTCTGCTGAGCTTGCAACCTGTTTA
TTCACATGGCCTGCCATGCCACTTGGAGGTTTCTGATTACTCCCAAACCTGCTGGTTCTTTATGTCTTTCTCAGC
GAATAATTCCATCTGTTCATGTTGGAAACTTAGGTGATATGCTCATCTCCTTTTGCCTGTTTATGGAGGTCACCA
GCCTCTATCATTTGTATGATTTCGTTTACACTGTTTATATCTCTCTGTCCCCCCTTTTTCTGCCATTGGCATGGT

FIGURE 251B

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TTAGACCTGTACTCTTTATCAGCAGAGGTACTGTAATATATTTGTGATCCCTCAGCTTCCAGGCTTACTCCTGGT
CTCTGCCTTCCTATCTACATATCCTTTTAAAATAAAATTTTAACTATCTCCTGAAAAATTGTTGAGTAGGTCACG
CACAATCAGGAGAAAAATCTATTCATGACATACAAGTCTCTGTCTAATCTGAACACTGCACCTGTCTCTGGCCTT
TTTTTCTTGTCATTTCCTAGACCTTAAAAAATGTGTATTGAGAAAGAACTCTGTTAGCTATACAGAAGATGAACT
GGGCAATATAGAGTAGCAGCATGGAGACCAGTCTGACTGAACTAAGGCAGTGGAAGTGTGGATGAGGAAGAGAGG
TGAAAATTGAGAAGCGCTATCCTTTCTCTTTGGGCATTATTAGGAGGCTCACAGACAAGTCCAGGAGTCTGGTTA
TACCCTCCTGTGCCATTCAACCAGGTGGCTTTCCCATGACTGTGATGAATAAAATTGAGAAGCCCCTGCCCTTTT
CAGAGCAGAGGGTGAGGAGAAAGCTACCATTTTGTCCTCATCCTTACCCCCGTTGACTTGGCGAGAGATTTGACC
TTTCAGGTTTTGATCCTGTCATTTTCTAGGATGTGGTGCACGCACTTTGCTGTTGCGCATGGTGAAGTATTGTGC
CTAGGTCCTGGGTCTTCATCTGTTTGGCTCTGCTACTGTTTCCTCCTCCCAGGAAGTGTGGTTAGACAAATAATG
TGTTTTAATTACCTGTCACACTCAGGATTAATACATACTCAGGTTAACTGTAGAGAGGCATTGGCTTCAGAACAC
TCCTCGTGACAATTTTAACCATTTTCTTTGTCTAGAGTCTGCCTTTTTCTTTTTTACAATTTCTTTTATTTCAAC
ACTAGGTTTCAATATGGTGTTCCTGCTACCTCCCACCTCCCTCCTCCCTCATCACACATGCAAATTGTCAGCTTA
TTGAGACAACCCACTTAGATTCATATATGGACAAGGACAAGGTATTTTGCATTTGTTACTGGAATTCAGTTTTCC
TAACTATTTACTACCAGAAATGGTCAATAACTTACTTTGTGGTTAGCAAATCAAATTGTGTGATAGATAGTTTCC
CAGTATGATGGCCAGTCAGTCTTTCCATCCCTGTGCCTACATGCTGCTCTTCCCGTCCACAAGTGGAGTCTGTTT
CTCTTGAGTTTTGGCTGGCCTTATGAATGGCTTTGCTTACTGAAGTGCAGCAGAAGAAATTTAGTATATGTCCAA
GCCTAGGCTTTAAGAGACTGGCAGCTTTCCTTTTATCCTTTTTGGAAGCTAGCCACCATGCTGCAAAGAAGCTCA
GCTGGATTACTGAAAGATGAGAGGCCATGTGGAGAGAGACTCTTGAGGATGAGAGATTATCTTGGATGTTCCAGC
CTTAAGCTCCCAGCTGAATGTGGGTGTATCCTCAGCTACACCACAGAAAACAGAGGAACTACTCAGTCGATCCCA
ATCAACCCACAGACTCACTAGAAATAACAAATTATTGTTTTAAGCCACGAGGTTTTGGGGGAGGGTTGTTAAACA
GTAATAGATAAGTGAGACAGATTGCTTGTTATTTATGGTCAAATGGTGATTATCTCTGGTGAGATTACAGGTGAT
GTTTTTTTTAAGTTATGCCTATCTGTAGTTTCCTTTTTTTCCTAAAATTGATTTGAATTATTAGTGTATTAACAG
AATAAAGAATGAACTTTAAAACACACGCTGGTTATATGCTTCCTCTAATTAAAATTCATGGCTCTCACCAC
```

FIGURE 252

CGGGLVFRGRRCAAAEGGRAGSGMELGRPLLEVLASALSPASPPLLPPDYILCVVSLLQMKDLGAEHLAGHEGVQ
LLGLLNVYLEQEERFQPREKGLSLIEATPENDNTLCPGLRNAKVEDLRSLANFFGSCTETFVLAVNILDRFLALM
KVKPKHLSCIGVCSFLLAARIVEEDCNIPSTHDVIRISQCKCTASDIKRMEKIISEKLHYELEATTALNFLHLYH
TIILCHTSERKEILSLDKLEAQLKACNCRLIFSKAKPSVLALCLLNLEVETLKSVELLEILLLVKKHSKINDTEF
FYWRELVSKCLAEYSSPECCKPDLKKLVWIVSRRTAQNLHNSYYSVPELPTIPEGGCFDESESEDSCEDMSCGEE
SLSSSPPSDQECTFFFNFKVAQTLCFPS

FIGURE 253

CCGGTCGGATGCCGGACCGGGGGCACCGCTGAGGCGGTGGGTCCCCGACCTGCGAGACAGGTTTGGAAGCCCCCG
CTGCGCCCAGTCCGTGCGGACCGCGAGGCCGCGGGCGGGTGGAGGCGCGTCTCCGGCACG**ATG**AAGGATTTGGGG
GCAGAGCACTTGGCAGGTCATGAAGGGGTCCAACTTCTCGGGTTGTTGAACGTCTACCTGGAACAAGAAGAGAGA
TTCCAACCTCGAGAAAAAGGGCTGAGTTTGATTGAGGCTACCCCGGAGAATGATAACACTTTGTGTCCAGGATTG
AGAAATGCCAAAGTTGAAGATTTAAGGAGTTTAGCCAACTTTTTTGGATCTTGCACTGAAACTTTTGTCCTGGCT
GTCAATATTTTGGACAGGTTCTTGGCTCTTATGAAGGTGAAACCTAAACATTTGTCTTGCATTGGAGTCTGTTCT
TTTTTGCTGGCTGCTAGAATAGTTGAAGAAGACTGCAATATTCCATCCACTCATGATGTGATCCGGATTAGTCAG
TGTAAATGTACTGCTTCTGACATAAAACGGATGGAAAAAATAATTTCAGAAAAATTGCACTATGAATTGGAAGCT
ACTACTGCCTTAAACTTTTTGCACTTATACCATACTATTATACTTTGTCATACTTCAGAAAGGAAAGAAATACTG
AGCCTTGATAAACTAGAAGCTCAGCTGAAAGCTTGCAACTGCCGACTCATCTTTTCAAAAGCAAAACCATCTGTA
TTAGCCTTGTGCCTTCTCAATTTGGAAGTGGAAACTTTGAAATCTGTTGAATTACTGGAAATTCTCTTGCTAGTT
AAAAAACATTCCAAGATTAATGACACTGAGTTCTTCTACTGGAGAGAGTTGGTTTCTAAATGCCTAGCCGAGTAT
TCTTCTCCTGAATGTTGCAAACCAGATCTTAAGAAGTTGGTTTGGATCGTTTCAAGGCGCACAGCCCAGAACCTC
CACAACAGCTACTATAGTGTTCCTGAGCTGCCAACGATACCTGAGGGGGGTTGTTTTGATGAAAGTGAAAGTGAG
GACTCTTGTGAAGATATGAGTTGTGGAGAGGAGTCTCAGCAGCTCTCCTCCCAGTGATCAAGAGTGCACCTTC
TTTTTCAACTTCAAAGTGGCACAAACACTGTGCTTTCCATCT**TAG**AAATCTGATTGTTCTGTCAGAATTTATATT
TACAGGGTTTCAAAGCAATAAATGGGGGAATAGGTAGTTTCCTGGTTTAGCCCCCATCTAGTCAGGAATTAATAT
ACTGGAATACCTACCTTCTATTTGTTATTCAGATCAGATCTGGCCTATTTTCATATTTATCCTAAGCCATCAAAT
GGGGTAGTGCCTCTTAAACCATTAACAGTACTTTAGACATTGGCACTTTATTTTTCTCGTAGATCTTTAGCTACT
TTGGGGAGGAGGGAAGGTGCTGATACCTTCAATTTGTTACTTTTCAAGATTTTTAAAAATAACTAGTGTAGCTTA
TCTTAAACATTTTATAAAACCTTCAGATGTCTTTAAGCAGATTGGAAGTATGCAAGTGCTTCCTTAGCAGGGACA
GTGGATAATCCTTAATGGTTTATCATAGATTTCACCCTCCCCCCTTCTCAGAAGAGTGAGTATGCTCTTAAATGT
CAAACACATTTTTGTTGTTTTGTTTTTTAAATGATCAGTGTCTATTTGATGTGATGCAGATCTTATAAATTTGGG
AATTATAATATTGACATTTCTGTGATTTTTATATATGTAATGTCTTAATTGAGATTTGTGTTAAGGCAGAAATAA
TTAGGCTAGGGCTCTTAGTTTTCATTCCTATTGCCCCAAGTATTGTCAAACTATGGTATTATTTTAATGTTACTT
TAAAAATCCATAATCTGCTAGTTTTGCATGTACTTATATGAAAACAGTGCAGTAAGTTGAAAACTCAGTATCTAT
GGAATTGATAAATGTTGATCTGGTGTAGTATATTTTATCCGCATTTTCTTATATTAAAAAATGTTCTGCATGATT
ACATTTTATTTGCCTTTGT

FIGURE 254

MKDLGAEHLAGHEGVQLLGLLNVYLEQEERFQPREKGLSLIEATPENDNTLCPGLRNAKVEDLRSLANFFGSCTE
TFVLAVNILDRFLALMKVKPKHLSCIGVCSFLLAARIVEEDCNIPSTHDVIRISQCKCTASDIKRMEKIISEKLH
YELEATTALNFLHLYHTIILCHTSERKEILSLDKLEAQLKACNCRLIFSKAKPSVLALCLLNLEVETLKSVELLE
ILLLVKKHSKINDTEFFYWRELVSKCLAEYSSPECCKPDLKKLVWIVSRRTAQNLHNSYYSVPELPTIPEGGCFD
ESESEDSCEDMSCGEESLSSSPPSDQECTFFFNFKVAQTLCFPS

FIGURE 255

GGCGGACCGAAGAACGCAGGAAGGGGGCCGGGGGGACCCGCCCCCGGCCGGCCGCAGCC**ATG**AACTCCAACGTGG
AGAACCTACCCCCGCACATCATCCGCCTGGTGTACAAGGAGGTGACGACACTGACCGCAGACCCACCCGATGGCA
TCAAGGTCTTTCCCAACGAGGAGGACCTCACCGACCTCCAGGTCACCATCGAGGGCCCTGAGGGGACCCCATATG
CTGGAGGTCTGTTCCGCATGAAACTCCTGCTGGGGAAGGACTTCCCTGCCTCCCCACCCAAGGGCTACTTCCTGA
CCAAGATCTTCCACCCGAACGTGGGCGCCAATGGCGAGATCTGCGTCAACGTGCTCAAGAGGGACTGGACGGCTG
AGCTGGGCATCCGACACGTACTGCTGACCATCAAGTGCCTGCTGATCCACCCTAACCCCGAGTCTGCACTCAACG
AGGAGGCGGGCCGCCTGCTCTTGGAGAACTACGAGGAGTATGCGGCTCGGGCCCGTCTGCTCACAGAGATCCACG
GGGGCGCCGGCGGGCCCAGCGGCAGGGCCGAAGCCGGTCGGGCCCTGGCCAGTGGCACTGAAGCTTCCTCCACCG
ACCCTGGGGCCCCAGGGGGCCCGGGAGGGGCTGAGGGTCCCATGGCCAAGAAGCATGCTGGCGAGCGCGATAAGA
AGCTGGCGGCCAAGAAAAAGACGGACAAGAAGCGGGCGCTGCGGGCGCTGCGGCGGCTG**TAG**TGGGCTCTCTTCC
TCCTTCCACCGTGACCCCAACCTCTCCTGTCCCCTCCCTCCAACTCTGTCTCTAAGTTATTTAAATTATGGCTGG
GGTCGGGGAGGGTACAGGGGGCACTGGGACCTGGATTTGTTTTTCTAAATAAAGTTGGAAAAGCA

FIGURE 256

MNSNVENLPPHIIRLVYKEVTTLTADPPDGIKVFPNEEDLTDLQVTIEGPEGTPYAGGLFRMKLLLGKDFPASPP
KGYFLTKIFHPNVGANGEICVNVLKRDWTAELGIRHVLLTIKCLLIHPNPESALNEEAGRLLLENYEEYAARARL
LTEIHGGAGGPSGRAEAGRALASGTEASSTDPGAPGGPGGAEGPMAKKHAGERDKKLAAKKKTDKKRALRALRRL

FIGURE 257A

ATTCAGCCGGTGCGCGCGGCGGCGGGAGGCAGTGGCTGGGGAGTCCCGTCGACGCTCTGTTCCGAGAGCGTGCCC
CGGACCGCCAGCTCAGAACAGGGGCAGCCGTGTAGCCGAACGGAAGCTGGGAGCAGCCGGGACTGGTGGCCCGCG
CCCGAGCTCCGCAGGCGGGAAGCACCCTGGATTTGGGAAGTCCCGGGAGCAGCGCGGCGGCACCTCCCTCACCCA
AGGGGCCGCGGCGACGGTCACGGGGCGCGGCGCCACCGTGAGCGACCCAGGCCAGGATTCTAAATAGACGGCCCA
GGCTCCTCCTCCGCCCGGGCCGCCTCACCTGCGGGCATTGCCGCGCCGCCTCCGCCGGTGTAGACGGCACCTGCG
CCGCCTTGCTCGCGGGTCTCCGCCCCTCGCCCACCCTCACTGCGCCAGGCCCAGGCAGCTCACCTGTACTGGCGC
GGGCTGCGGAAGCCTGCGTGAGCCGAGGCGTTGAGGCGCGGCGCCCACGCCACTGTCCCGAGAGGACGCAGGTGG
AGCGGGCGCGGCTTCGCGGAACCCGGCGCCGGCCGCCGCAGTGGTCCCAGCCTACACCGGGTTCCGGGGACCCGG
CCGCCAGTGCCCGGGGAGTAGCCGCCGCCGTCGGCTGGGCACC**ATG**AACAGCAGCAGCGCCAACATCACCTACGC
CAGTCGCAAGCGGCGGAAGCCGGTGCAGAAAACAGTAAAGCCAATCCCAGCTGAAGGAATCAAGTCAAATCCTTC
CAAGCGGCATAGAGACCGACTTAATACAGAGTTGGACCGTTTGGCTAGCCTGCTGCCTTTCCCACAAGATGTTAT
TAATAAGTTGGACAAACTTTCAGTTCTTAGGCTCAGCGTCAGTTACCTGAGAGCCAAGAGCTTCTTTGATGTTGC
ATTAAAATCCTCCCCTACTGAAAGAAACGGAGGCCAGGATAACTGTAGAGCAGCAAATTTCAGAGAAGGCCTGAA
CTTACAAGAAGGAGAATTCTTATTACAGGCTCTGAATGGCTTTGTATTAGTTGTCACTACAGATGCTTTGGTCTT
TTATGCTTCTTCTACTATACAAGATTATCTAGGGTTTCAGCAGTCTGATGTCATACATCAGAGTGTATATGAACT
TATCCATACCGAAGACCGAGCTGAATTTCAGCGTCAGCTACACTGGGCATTAAATCCTTCTCAGTGTACAGAGTC
TGGACAAGGAATTGAAGAAGCCACTGGTCTCCCCCAGACAGTAGTCTGTTATAACCCAGACCAGATTCCTCCAGA
AAACTCTCCTTTAATGGAGAGGTGCTTCATATGTCGTCTAAGGTGTCTGCTGGATAATTCATCTGGTTTTCTGGC
AATGAATTTCCAAGGGAAGTTAAAGTATCTTCATGGACAGAAAAAGAAAGGGAAAGATGGATCAATACTTCCACC
TCAGTTGGCTTTGTTTGCGATAGCTACTCCACTTCAGCCACCATCCATACTTGAAATCCGGACCAAAAATTTTAT
CTTTAGAACCAAACACAAACTAGACTTCACACCTATTGGTTGTGATGCCAAAGGAAGAATTGTTTTAGGATATAC
TGAAGCAGAGCTGTGCACGAGAGGCTCAGGTTATCAGTTTATTCATGCAGCTGATATGCTTTATTGTGCCGAGTC
CCATATCCGAATGATTAAGACTGGAGAAAGTGGCATGATAGTTTTCCGGCTTCTTACAAAAAACAACCGATGGAC
TTGGGTCCAGTCTAATGCACGCCTGCTTTATAAAAATGGAAGACCAGATTATATCATTGTAACTCAGAGACCACT
AACAGATGAGGAAGGAACAGAGCATTTACGAAAACGAAATACGAAGTTGCCTTTTATGTTTACCACTGGAGAAGC
TGTGTTGTATGAGGCAACCAACCCTTTTCCTGCCATAATGGATCCCTTACCACTAAGGACTAAAAATGGCACTAG
TGGAAAGACTCTGCTACCACATCCACTCTAAGCAAGGACTCTCTCAATCCTAGTTCCCTCCTGGCTGCCATGAT
GCAACAAGATGAGTCTATTTATCTCTATCCTGCTTCAAGTACTTCAAGTACTGCACCTTTTGAAAACAACTTTTT
CAACGAATCTATGAATGAATGCAGAAATTGGCAAGATAATACTGCACCGATGGGAAATGATACTATCCTGAAACA
TGAGCAAATTGACCAGCCTCAGGATGTGAACTCATTGCTGGAGGTCACCCAGGGCTCTTTCAAGATAGTAAAAA
CAGTGACTTGTACAGCATAATGAAAAACCTAGGCATTGATTTTGAAGACATCAGACACATGCAGAATGAAAAATT
TTTCAGAAATGATTTTTCTGGTGAGGTTGACTTCAGAGACATTGACTTAACGGATGAAATCCTGACGTATGTCCA
AGATTCTTTAAGTAAGTCTCCCTTCATACCTTCAGATTATCAACAGCAACAGTCCTTGGCTCTGAACTCAAGCTG
TATGGTACAGGAACACCTACATCTAGAACAGCAACAGCAACATCACCAAAAGCAAGTAGTAGTGGAGCCACAGCA
ACAGCTGTGTCAGAAGATGAAGCACATGCAAGTTAATGGCATGTTTGAAAATTGGAACTCTAACCAATTCGTGCC
TTTCAATTGTCCACAGCAAGACCCACAACAATATAATGTCTTTACAGACTTACATGGGATCAGTCAAGAGTTCCC
CTACAAATCTGAAATGGATTCTATGCCTTATACACAGAACTTTATTTCCTGTAATCAGCCTGTATTACCACAACA
TTCCAAATGTACAGAGCTGGACTACCCTATGGGGAGTTTTGAACCATCCCCATACCCCACTACTTCTAGTTTAGA
AGATTTTGTCACTTGTTTACAACTTCCTGAAAACCAAAAGCATGGATTAAATCCACAGTCAGCCATAATAACTCC
TCAGACATGTTATGCTGGGGCCGTGTCGATGTATCAGTGCCAGCCAGAACCTCAGCACACCCACGTGGGTCAGAT
GCAGTACAATCCAGTACTGCCAGGCCAACAGGCATTTTTAAACAAGTTTCAGAATGGAGTTTTAAATGAAACATA
TCCAGCTGAATTAAATAACATAAATAACACTCAGACTACCACACATCTTCAGCCACTTCATCATCCGTCAGAAGC
CAGACCTTTTCCTGATTTGACATCCAGTGGATTCCTG**TAA**TTCCAAGCCCAATTTTGACCCTGGTTTTTGGATTA
AATTAGTTTGTGAAGGATTATGGAAAAATAAAACTGTCACTGTTGGACGTCAGCAAGTTCACATGGAGGCATTGA
TGCATGCTATTCACAATTATTCCAAACCAAATTTTAATTTTTGCTTTTAGAAAAGGGAGTTTAAAAATGGTATCA
AAATTACATATACTACAGTCAAGATAGAAAGGGTGCTGCCACGGAGTGGTGAGGTACCGTCTACATTTCACATTA
TTCTGGGCACCACAAAATATACAAAACTTTATCAGGGAAACTAAGATTCTTTTAAATTAGAAAATATTCTCTATT
TGAATTATTTCTGTCACAGTAAAAATAAAATACTTTGAGTTTTGAGCTACTGGATTCTTATTAGTTCCCCAAATA

FIGURE 257B

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CAAAGTTAGAGAACTAAACTAGTTTTTCCTATCATGTTAACCTCTGCTTTTATCTCAGATGTTAAAATAAATGGT
TTGGTGCTTTTTATAAAAAGATAATCTCAGTGCTTTCCTCCTTCACTGTTTCATCTAAGTGCCTCACATTTTTTT
CTACCTATAACACTCTAGGATGTATATTTTATATAAAGTATTCTTTTTCTTTTTTAAATTAATATCTTTCTGCAC
ACAAATATTATTTGTGTTTCCTAAATCCAACCAATTTTCATTAATTCAGGCATATTTTAACTCCACTGCTTACCT
ACTTTCTTCAGGTAAAAGGGCAAATAATGATCGAAAAAATAATTATTTATTACATAATTTAGTTGTTTCTAGACT
ATAAATGTTGCTATGTGCCTTATGTTGAAAAAATTTAAAAGTAAAATGTCTTTCCAAATTATTTCTTAATTATTA
TAAAAATATTAAGACAATAGCACTTAAATTCCTCAACAGTGTTTTCAGAAGAAATAAATATACCACTCTTTACCT
TTATTGATATCTCCATGATGATAGTTGAATGTTGCAATGTGAAAAATCTGCTGTTAACTGCAACCTTGTTTATTA
AATTGCAAGAAGCTTTATTTCTAGCTTTTTAATTAAGCAAAGCACCCATTTCAATGTGTATAAATTGTCTTTAAA
AACTGTTTTAGACCTATAATCCTTGATAATATATTGTGTTGACTTTATAAATTTCGCTTCTTAGAACAGTGGAAA
CTATGTGTTTTTCTCATATTTGAGGAGTGTTAAGATTGCAGATAGCAAGGTTTGGTGCAAAGTATTGTAATGAGT
GAATTGAATGGTGCATTGTATAGATATAATGAACAAAATTATTTGTAAGATATTTGCAGTTTTTCATTTTAAAAA
GTCCATACCTTATATATGCACTTAATTTGTTGGGGCTTTACATACTTTATCAATGTGTCTTTCTAAGAAATCAAG
TAATGAATCCAACTGCTTAAAGTTGGTATTAATAAAAAGACAACCACATAGTTCGTTTACCTTCAAACTTTAGGT
TTTTTTAATGATATACTGATCTTCATTACCAATAGGCAAATTAATCACCCTACCAACTTTACTGTCCTAACATGG
ACTTTCAAAAAGAAAAAATGACACCATCTTTTATTCTTTTTTTTTTTTTTTTTGAGAGAGAGTCTTACTCTGC
CGCCCAAACTGGAGTGCAGTGGCACAATCTTGGCTCACTGCAACCTCTACCTCCTGGGTTCAAGTGATTCTCTTG
CCTCAGCCTCCCGAGTTGCTGGGATTGCGGGCATGGTGGCGTGAGCCTGTAGTCCTAGCTACTCGGGAGGCTGAG
GCAGGAGAATAGCCTGAACCTGGGAATCGGAGGTTGCAGGGCCAAGATCGCCCCACTGCACTCCAGCCTGGCAAT
AGACCGAGCTCCGTCTCCAAAAAAAAAAATACAATTTTATTTCTTTTACTTTTTTTAGTAAGTTAATGTATATA
AAAATGGCTTCGGACAAAATATCTCTGAGTTCTGTGTATTTTCAGTCAAAACTTTAAACCTGTAGAATCAATTTA
AGTGTTGAAAAAATTTGTCTGAAACATTTCATAATTTGTTTCCAGCATGAGGTATCTAAGGATTTAGACCAGAG
GTCTAGATTAATACTCTATTTTTACATTTAAACCTTTTATTATAAGTCTTACATAAACCATTTTTGTTACTCTCT
TCCACATGTTACTGGATAAATTGTTTAGTGGAAAATAGGCTTTTTAATCATGAATATGATGACAATCAGTTATAC
AGTTATAAAATTAAAAGTTTGAAAAGCAATATTGTATATTTTTATCTATATAAAATAACTAAAATGTATCTAAGA
ATAATAAAATCACGTTAAACC
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FIGURE 258

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MNSSSANITYASRKRRRKPVQKTVKPIPAEGIKSNPSKRHRDRLNTELDRLASLLPFPQDVINKLDKLSVLRLSVS
YLRAKSFFDVALKSSPTERNGGQDNCRAANFREGLNLQEGEFLLQALNGFVLVVTTDALVFYASSTIQDYLGFQQ
SDVIHQSVYELIHTEDRAEFQRQLHWALNPSQCTESGQGIEEATGLPQTVVCYNPDQIPPENSPLMERCFICRLR
CLLDNSSGFLAMNFQGKLKYLHGQKKKGKDGSILPPQLALFAIATPLQPPSILEIRTKNFIFRTKHKLDFTPIGC
DAKGRIVLGYTEAELCTRGSGYQFIHAADMLYCAESHIRMIKTGESGMIVFRLLTKNNRWTWVQSNARLLYKNGR
PDYIIVTQRPLTDEEGTEHLRKRNTKLPFMFTTGEAVLYEATNPFPAIMDPLPLRTKNGTSGKDSATTSTLSKDS
LNPSSLLAAMMQQDESIYLYPASSTSSTAPFENNFFNESMNECRNWQDNTAPMGNDTILKHEQIDQPQDVNSFAG
GHPGLFQDSKNSDLYSIMKNLGIDFEDIRHMQNEKFFRNDFSGEVDFRDIDLTDEILTYVQDSLSKSPFIPSDYQ
QQQSLALNSSCMVQEHLHLEQQQQHHQKQVVVEPQQQLCQKMKHMQVNGMFENWNSNQFVPFNCPQQDPQQYNVF
TDLHGISQEFPYKSEMDSMPYTQNFISCNQPVLPQHSKCTELDYPMGSFEPSPYPTTSSLEDFVTCLQLPENQKH
GLNPQSAIITPQTCYAGAVSMYQCQPEPQHTHVGQMQYNPVLPGQQAFLNKFQNGVLNETYPAELNNINNTQTTT
HLQPLHHPSEARPFPDLTSSGFL
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FIGURE 259

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AGCTGGCTGAGAGGGGACTGGGCGCCGGCGGGGAAGGAGGAGCGCTAGGTCGGTGTACGACCGAGATTAGGGTGC
GTGCCAGCTCCGGGAGGCCGCGGTGAGGGGCCGGGCCCAAGCTGCCGACCCGAGCCGATCGTCAGGGTCGCCAGC
GCCTCAGCTCTGTGGAGGAGCAGCAGTAGTCGGAGGGTGCAGGATATTAGAA**ATG**GCTACTCCCCAGTCAATTTT
CATCTTTGCAATCTGCATTTTAATGATAACAGAATTAATTCTGGCCTCAAAAAGCTACTATGATATCTTAGGTGT
GCCAAAATCGGCATCAGAGCGCCAAATCAAGAAGGCCTTTCACAAGTTGGCCATGAAGTACCACCTGACAAAAA
TAAGAGCCCGGATGCTGAAGCAAAATTCAGAGAGATTGCAGAAGCATATGAAACACTCTCAGATGCTAATAGACG
AAAAGAGTATGATACACTTGGACACAGTGCTTTTACTAGTGGTAAAGGACAAAGAGGTAGTGGAAGTTCTTTTGA
GCAGTCATTTAACTTCAATTTTGATGACTTATTTAAAGACTTTGGCTTTTTTGGTCAAAACCAAAACACTGGATC
CAAGAAGCGTTTTGAAAATCATTTCCAGACACGCCAGGATGGTGGTTCCAGTAGACAAAGGCATCATTTCCAAGA
ATTTTCTTTTGGAGGTGGATTATTTGATGACATGTTTGAAGATATGGAGAAAATGTTTTCTTTTAGTGGTTTTGA
CTCTACCAATCAGCATACAGTACAGACTGAAAATAGATTTCATGGATCTAGCAAGCACTGCAGGACTGTCACTCA
ACGAAGAGGAAATATGGTTACTACATACACTGACTGTTCAGGACAG**TAG**TTCTTATTCTATTCTCACTAAATCCA
ACTGGTTGACTCTTCCTCATTATCTTTGATGCTAAACAATTTTCTGTGAACTATTTTGACAAGTGCATGATTTCA
CTTTAAACAATTTGATATAGCTATTAAATATATTTAAGGGTTTTTTTTTTTGACAAATTCAACATTCAACGAGT
AGACAAAATGCTAATTATTTCCCTGATTAGGAAAGTTTCTTTAAAAAACACGTAATTTTGCCTAGTGCTTTTTCT
CTACCTGCCCTTGGGCTCACTAATATCACCAGTATTATTACCAAGAAAATATTGAGTTTACCTGATTAAACTTTA
AAAGTTAATTGTAGATTTAAATTGTGTGAACCTAATGATTTTTGCAGTGAAACCTTTACTAATTCAAAGTTGCAT
GTTCTATGACATCTGTGACTTGCGTTGCAGAGTGTACATGAAACTGTATAATTGAGTCATTCAGTAAAGGAGAAC
AGTATCTTGGTTAATTGCTACTGAAAGGTTGAGAAAGGAATGGTTTGATATTTACCACAGCGCTGTGCCTTTCTA
CAGTAGAACTGGGGTAAAGGAAATGGTTTTATTGCCCATAGTCATTTAGGCTGGAAAAAAGTTGAAAACTTAACG
AAATATTGCCAAGAGATTGTTATGTGTTTGGTTCCAGCCTAAAAATGATTTGTAGTGTTGAAATCATAGCTACT
TACATAGCTTTTTCATATTTCTTTCTTAGTTGTTGGCACTCTTAGGTCTTAGTATGGATTTATGTGTTTGTGTGT
GTGTAGTTTATCCTCTCTCTCATCTTTATCTAGAGATTGACTGATACCTCATTCTGTTTGTAAAACCAGCCAGTA
ATTTCTGTGCAACCTTACTATGTGCAATATTTTTAAATCCTGAGAAATGTGTGCTTTTGTTTTCGGATAGACTTA
TTTCTTTAGTTCTGCACTTTTCCACATTATACTCCATATGAGTATTAATCCTATGGATACATATTAAAACAAGTG
TCTCATACAACATTGTATGTGAGAGAAATATAAATATTTACAACCTGATATTCGTTGTTGTTTATTGTTAAAAG
TTTATTATGCAACTCTGGAGGTATAGAGGGCATATAAGCTATGGGACATATGCTGATCACAGGCTATATTCATGA
AGTTACTTTTGACCAACCTGAAAACTGATAGGATTTTGTTTGTCATTGGTAATTTCTACTGCATTCTTACCATC
CTTCTCTCACAAATTTTGATAGCTTGAAGATCTTTTTAATTATAATTTTGTTGTATTTGTTCCTAGGAGCAAGT
GTTCCTGCTGCCAGTTCTTTCCTCTTTAGGCGTGGTTGAGAAAAAGCAGAAACTTTACATAAAGCTGTATTTCTT
AATCATCTTTAATTTGAAACTTAAGAAAATGAATTTATTCTGTTATATTTATGTAACTTATTTCCTGGAAGTTAT
ATCTACTAGTTTTGTTTGATAATAATAAAATTAGCTATACCTTGAA
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FIGURE 260

MATPQSIFIFAICILMITELILASKSYYDILGVPKSASERQIKKAFHKLAMKYHPDKNKSPDAEAKFREIAEAYE
TLSDANRRKEYDTLGHSAFTSGKGQRGSGSSFEQSFNFNFDDLFKDFGFFGQNQNTGSKKRFENHFQTRQDGGSS
RQRHHFQEFSFGGGLFDDMFEDMEKMFSFSGFDSTNQHTVQTENRFHGSSKHCRTVTQRRGNMVTTYTDCSGQ

FIGURE 261

AGGAAATGGTTTCTGGAAAACGTTAGTAAGGTCAGTTTTTAAACACTGAATCCAAGGTTGTCTTCTGGAATATCC
AAATTGGTTATGACCAGAATGTGATTCATTATACTAAGCTAAAGGAATAGATTAAAGAATTAGCAACAGTGGCCG
GGTGCAGTGGCTCATGCCTGTAACCCCAGCACTTTGGGGGAGGCCCAGGTGGGTGGATCATTTGAGGTCAGGAGT
TTGAGACCAGCCTGGCCAACATGGTGAAACCTAAAAATACAAAAATTAGCCAGGTGTGGTGGCAGGTGCTTGTAA
TCCCAGCTGCTTGGGAGGCTGAAGCAGGAGAATTGCTTGAACCCGGAGGCAGGGGTTGCAGTGAGCCAAGATCAC
ACCATTGCACTCCAGCCTGGGTGGCAGAGTGAGACTCTGTCTCAAAAATTAAAAAGCAACAGTGTATATGCAATA
GTTGCAAGATGTAAGATCACCCAAAGAGTATGCAGAGGGAAATGAGGGACAGAACCCAGAAATATTAATACCCAG
GGAGTGAACAGGAGGAGGACCCCAAGAAGTTACTGAGTCAGATTTTTCCCACTCATCCAGGTGAAAGTTTAGGTC
AATAATGTGAAATACCAGAGGGATTAAATGTCTACAGAAATAAAACCATGTCTCACATTAAGACAAACAAGTAGG
TTGGAGGGATATTTTGAAAGGCAAGGTGATATTAAACTTTATTCTGAAAGTAGTTTGTTAGAGAAAGAGGCATGA
TAAGAGTTGCAGTTAACTGATTGGAAACTATGCAGCAGATGAAACTGGAATAAAGGAAACTCATCAGGAAATGAT
TATAGTAATAAGGGCCAGAAATAAGGGCTTGCTTGCCTGAACTAAAAACAAAGAGGATACAAAGGTTCTAGAAAT
ATTTCAAAGGAATTAGCTTTAATTCAGCAATACTCATTGAGAATCACCTATGCACCTGGCTCTGAAGATGAAGTG
CTGAGTAAACTTAGACATGGACCCTGCTATCATGGAGATGGCAGATTATTGGTCAGAATGCTCTTACCTGTCATT
GTAGCAATTTTGTTAGATCCTTAATACCTCTGAATTGCTAATAAACTTGTTTTGGCTGAAAAAATAGTCCTGTGA
ATTTTACCATGCAGTTAAATAAGAAACTAAAAGCAAACCTAAATACCACCAAAAAGGTTAGTAGTCTGTTATATG
CATTAGCCTTAATCTAAGGAAATATTTTATTATAGGTCTCCTTGAAGAAAATGATATTTTCAGGAATGCTCAAGC
AGGTGTTCTCATCAGCACTAATAGTCATCCAATCTTAAGGAAAAACAGAATATTTGATGGATTTGCCGCAGGTAT
TGAAATTACAAATCACGCAACTGCAACACTAGAAGGCAATCAGATTTTTAACAACCGGTTTGGAGGCTTATTTTT
AGCATCTGGTGTTAATGTGACA**ATG**AAAGATAACAAAATAATGAACAATCAAGATGCCATAGAAAAGGCTGTTAG
TAGAGGCCAATGTTTATATAAAATATCAAGTTATACCAGCTATCCCATGCATGATTTCTACAGATGTCATACTTG
TAACACCACAGATCGAAATGCCATATGTGTGAACTGCATTAAGAAGTGCCATCAGGGACATGATGTAGAGTTTAT
TAGACATGATAGGTATGTAGCACACTTGCTTGATATATTACCCAATTACTTTCCCCCTCACTTTTCTAATATTTG
GGTTTCATTTTGCTTTAGGTTTTTCTGTGACTGTGGTGCTGGAACACTGTCTAATCCTTGTACATTAGCTGGTGA
GCCTACACATGATACAGATACACTATATGACTCTGCTCCACCTATAGAATCTAATACATTGCAGCACAAC**TGA**AT
TCCTTCCCTAAAGAAAAAGTCCTGCCATTGTAACATCATAACTTAAAACACTTTTTTGGAAGAAGATTTAAAATA
TTTGCCCATGCTACAGGAAGAGACTGTATTAAAAATGGATACACAAGGTCAGTTGACACTATGAAGCTCAAGCTA
CCAAAAAGAAAGTGGCAATATATTGACTCAGGATCTCAAAGCTGGGTGTTTAGCATTACTGTGTAAAGACTTGA
AGGGACAGAAGTGAAGAAAATAAGCTGCAATTTTGTACAGATACCAACTTCTGAAAAGCTGGTGTTTTTACAACT
AGCATTGAATGCAGTCCAATTTGCAGTAGTAATCTTCAATAGACAAGCAGCTTTGTTGCTGCCTTTATGGACATG
GGTACCAATTGCTTTTGTAATATGGTAAAAATGTGAGCTAGCACTTCTGCGTTCCTTTTGATTTTTTTTTTTAA
CATGTATTCAGATTGAGAAATATGATTTTAATGCCTTAATCTCATGTAGTTTGTTTTAATTTCAAGCAAATCT
TACTGTACTTGAATGTGCCCTGTTTTGTTAGCACACCTAGACTTGCTGTAACTGTACTCATGTCCCAGTATGTAC
GTTCTTTCTATGAAAGAGAAAACACTAATCTTAAATTATATCCAGCAATGTTTCTGGTATCCTTTAAGAAAAGTT
AAGACTATTATTTCCTTCCCTTCCCTGTGCAGCATTCAAAAATCACCCCTAGAAAAAGTGAGTGTTTTAATGAGA
CTTCCTAGGAAGGGATGCACTGTAAAACAAAGTATTCTTGTAACTCAGTTTTGTGAAAGGTAAAAAACTACTAT
GTTTTAAGTACACTTTAGAAAGTCTCTTCAAAACAAACAGTCCTGTATTTGAACTCTGTTCATAGTTTTTTTTTG
AACAGTTTAGACAAAACTGTTGGAAATTAAACCAATTTCCTGCATTAAGCTGAGACAAGTATATAAACAGCCCTA
TACAGTTTCATAGCTTTTCCTCCCCCATTTATGTGTATTGGTGACAGTGGGTATAAAACAGCCTGAAAGTGTATG
CATGTACCATAACATTTAGACTTAATATATTGTGGAGTATTCAATAACCATTATGTAGAAGGTAGATAAGAATTA
AAAGGGTTTAATTTCCTAGAAAGAAAATGGAAAAATGGTCATTTTTAAAAAATAAAGTTTATTAGATCATAATGT
TGTCTGAATTTACCACCTTTGTCAGAAGTCAACTCAAAGCTTCCAATGTAGTCAGTCTATAATTCCTTAATCAAA
GTCAGCAATTTATGGACAGCTTCAGCATTTACAGTTGACCTTTCACTAGCCAGGCAAACTTCCCTTAAAATTAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 262

MKDNKIMNNQDAIEKAVSRGQCLYKISSYTSYPMHDFYRCHTCNTTDRNAICVNCIKKCHQGHDVEFIRHDRYVA
HLLDILPNYFPPHFSNIWVSFCFRFFCDCGAGTLSNPCTLAGEPTHDTDTLYDSAPPIESNTLQHN

FIGURE 263

CGCGCCCCTCCCTCCTCGCGGACCTGGCGGTGCCGGCGCCCGGAGTGGCCCTTTAAAAGGCAGCTTATTGTCCGG
AGGGGGCGGGCGGGGGGCGCCGACCGCGGCCTGAGGCCCGGCCCCTCCCCTCTCCCTCCCTCTGTCCCCGCGTCG
CTCGCTGGCTAGCTCGCTGGCTCGCTCGCCCGTCCGGCGCACGCTCCGCCTCCGTCAGTTGGCTCCGCTGTCGGG
TGCGCGGCGTGGAGCGGCAGCCGGTCTGGACGCGCGGCCGGGGCTGGGGGCTGGGAGCGCGGCGCGCAAGATCTC
CCCGCGCGAGAGCGGCCCCTGCCACCGGGCGAGGCCTGCGCCGCG**ATG**GCAGAGATGGGCAGTAAAGGGGTGACG
GCGGGAAAGATCGCCAGCAACGTGCAGAAGAAGCTCACCCGCGCGCAGGAGAAGGTTCTCCAGAAGCTGGGGAAG
GCAGATGAGACCAAGGATGAGCAGTTTGAGCAGTGCGTCCAGAATTTCAACAAGCAGCTGACGGAGGGCACCCGG
CTGCAGAAGGATCTCCGGACCTACCTGGCCTCCGTCAAAGCCATGCACGAGGCTTCCAAGAAGCTGAATGAGTGT
CTGCAGGAGGTGTATGAGCCCGATTGGCCCGGCAGGGATGAGGCAAACAAGATCGCAGAGAACAACGACCTGCTG
TGGATGGATTACCACCAGAAGCTGGTGGACCAGGCGCTGCTGACCATGGACACGTACCTGGGCCAGTTCCCCGAC
ATCAAGTCACGCATTGCCAAGCGGGGGCGCAAGCTGGTGGACTACGACAGTGCCCGGCACCACTACGAGTCCCTT
CAAACTGCCAAAAAGAAGGATGAAGCCAAAATTGCCAAGGCCGAGGAGGAGCTCATCAAAGCCCAGAAGGTGTTT
GAGGAGATGAATGTGGATCTGCAGGAGGAGCTGCCGTCCCTGTGGAACAGCCGCGTAGGTTTCTACGTCAACACG
TTCCAGAGCATCGCGGGCCTGGAGGAAAAACTTCCACAAGGAGATGAGCAAGCTCAACCAGAACCTCAATGATGTG
CTGGTCGGCCTGGAGAAGCAACACGGGAGCAACACCTTCACGGTCAAGGCCCAGCCCAGAAAGAAAAGTAAACTG
TTTTCGCGGCTGCGCAGAAAGAAGAACAGTGACAACGCGCCTGCAAAAGGGAACAAGAGCCCTTCGCCTCCAGAT
GGCTCCCCTGCCGCCACCCCCGAGATCAGAGTCAACCACGAGCCAGAGCCGGCCGGCGGGGCCACGCCCGGGGCC
ACCCTCCCCAAGTCCCCATCTCAGCCAGCAGAGGCCTCGGAGGTGGCGGGTGGGACCCAACCTGCGGCTGGAGCC
CAGGAGCCAGGGGAGACGGCGGCAAGTGAAGCAGCCTCCAGCTCTCTTCCTGCTGTCGTGGTGGAGACCTTCCCA
GCAACTGTGAATGGCACCGTGGAGGGCGGCAGTGGGGCCGGGCGCTTGGACCTGCCCCCAGGTTTCATGTTCAAG
GTACAGGCCCAGCACGACTACACGGCCACTGACACAGACGAGCTGCAGCTCAAGGCTGGTGATGTGGTGCTGGTG
ATCCCCTTCCAGAACCCTGAAGAGCAGGATGAAGGCTGGCTCATGGGCGTGAAGGAGAGCGACTGGAACCAGCAC
AAGGAGCTGGAGAAGTGCCGTGGCGTCTTCCCCGAGAACTTCACTGAGAGGGTCCCATGACGGCGGGGCCCAGGC
AGCCTCCGGGCGTGTGAAGAACACCTCCTCCCGAAAAATGTGTGGTTCTTTTTTTTGTTTTGTTTTCGTTTTTCA
TCTTTTGAAGAGCAAAGGGAAATCAAGAGGAGACCCCCAGGCAGAGGGGCGTTCTCCCAAAGATTAGGTCGTTTT
CCAAAGAGCCGCGTCCCGGCAAGTCCGGCGGAATTCACCAGTGTTCCTGAAGCTGCTGTGTCCTCTAGTTGAGTT
TCTGGCGCCCCTGCCTGTGCCCGCATGTGTGCCTGGCCGCAGGGCGGGGCTGGGGGCTGCCGAGCCACCATGCTT
GCCTGAAGCTTCGGCCGCGCCACCCGGGCAAGGGTCCTCTTTTCCTGGCAGCTGCTGTGGGTGGGGCCCAGACAC
CAGCCTAGCCTGGCTCTGCCCCGCAGACGGTCTGTGTGCTGTTTGAAAATAAATCTTAGTGTTCAAAACAAAATG
AAACAAAAAAAAATGATAAAAACTCTCAAAAAAA

FIGURE 264

MAEMGSKGVTAGKIASNVQKKLTRAQEKVLQKLGKADETKDEQFEQCVQNFNKQLTEGTRLQKDLRTYLASVKAM
HEASKKLNECLQEVYEPDWPGRDEANKIAENNDLLWMDYHQKLVDQALLTMDTYLGQFPDIKSRIAKRGRKLVDY
DSARHHYESLQTAKKKDEAKIAKAEEELIKAQKVFEEMNVDLQEELPSLWNSRVGFYVNTFQSIAGLEENFHKEM
SKLNQNLNDVLVGLEKQHGSNTFTVKAQPSDNAPAKGNKSPSPPDGSPAATPEIRVNHEPEPAGGATPGATLPKS
PSQSSLPAVVVETFPATVNGTVEGGSGAGRLDLPPGFMFKVQAQHDYTATDTDELQLKAGDVVLVIPFQNPEEQD
EGWLMGVKESDWNQHKELEKCRGVFPENFTERVP

FIGURE 265A

AGATTTGATA**ATG**GGCTGCATTAAAAGTAAAGAAAACAAAAGTCCAGCCATTAAATACAGACCTGAAAATACTCC
AGAGCCTGTCAGTACAAGTGTGAGCCATTATGGAGCAGAACCCACTACAGTGTCACCATGTCCGTCATCTTCAGC
AAAGGGAACAGCAGTTAATTTCAGCAGTCTTTCCATGACACCATTTGGAGGATCCTCAGGGGTAACGCCTTTTGG
AGGTGCATCTTCCTCATTTTCAGTGGTGCCAAGTTCATATCCTGCTGGTTTAACAGGTGGTGTTACTATATTTGT
GGCCTTATATGATTATGAAGCTAGAACTACAGAAGACCTTTCATTTAAGAAGGGTGAAAGATTTCAAATAATTAA
CAATACGGAAGGAGATTGGTGGGAAGCAAGATCAATCGCTACAGGAAAGAATGGTTATATCCCGAGCAATTATGT
AGCGCCTGCAGATTCCATTCAGGCAGAAGAATGGTATTTTGGCAAAATGGGGAGAAAAGATGCTGAAAGATTACT
TTTGAATCCTGGAAATCAACGAGGTATTTTCTTAGTAAGAGAGAGTGAAACAACTAAAGGTGCTTATTCCCTTTC
TATTCGTGATTGGGATGAGATAAGGGGTGACAATGTGAAACACTACAAAATTAGGAAACTTGACAATGGTGGATA
CTATATCACAACCAGAGCACAATTTGATACTCTGCAGAAATTGGTGAAACACTACACAGAACATGCTGATGGTTT
ATGCCACAAGTTGACAACTGTGTGTCCAACTGTGAAACCTCAGACTCAAGGTCTAGCAAAAGATGCTTGGGAAAT
CCCTCGAGAATCTTTGCGACTAGAGGTTAAACTAGGACAAGGATGTTTCGGCGAAGTGTGGATGGGAACATGGAA
TGGAACCACGAAAGTAGCAATCAAAACACTAAAACCAGGTACAATGATGCCAGAAGCTTTCCTTCAAGAAGCTCA
GATAATGAAAAAATTAAGACATGATAAACTTGTTCCACTATATGCTGTTGTTTCTGAAGAACCAATTTACATTGT
CACTGAATTTATGTCAAAAGGAAGCTTATTAGATTTCCTTAAGGAAGGAGATGGAAAGTATTTGAAGCTTCCACA
GCTGGTTGATATGGCTGCTCAGATTGCTGATGGTATGGCATATATTGAAAGAATGAACTATATTCACCGAGATCT
TCGGGCTGCTAATATTCTTGTAGGAGAAAATCTTGTGTGCAAAATAGCAGACTTTGGTTTAGCAAGGTTAATTGA
AGACAATGAATACACAGCAAGACAAGGTGCAAAATTTCCAATCAAATGGACAGCTCCTGAAGCTGCACTGTATGG
TCGGTTTACAATAAAGTCTGATGTCTGGTCATTTGGAATTCTGCAAACAGAACTAGTAACAAAGGGCCGAGTGCC
ATATCCAGGTATGGTGAACCGTGAAGTACTAGAACAAGTGGAGCGAGGATACAGGATGCCGTGCCCTCAGGGCTG
TCCAGAATCCCTCCATGAATTGATGAATCTGTGTTGGAAGAAGGACCCTGATGAAAGACCAACATTTGAATATAT
TCAGTCCTTCTTGGAAGACTACTTCACTGCTACAGAGCCACAGTACCAGCCAGGAGAAAAATTA**TAA**TTCAAGTA
GCCTATTTTATATGCACAAATCTGCCAAAATATAAAGAACTTGTGTAGATTTTCTACAGGAATCAAAAGAAGAAA
ATCTTCTTTACTCTGCATGTTTTTAATGGTAAACTGGAATCCCAGATATGGTTGCACAAAACCACTTTTTTTTCC
CCAAGTATTAAACTCTAATGTACCAATGATGAATTTATCAGCGTATTTCAGGGTCCAAACAAAATAGAGCTAAGA
TACTGATGACAGTGTGGGTGACAGCATGGTAATGAAGGACAGTGAGGCTCCTGCTTATTTATAAATCATTTCCTT
TCTTTTTTTCCCCAAAGTCAGAATTGCTCAAAGAAAATTATTTATTGTTACAGATAAAACTTGAGAGATAAAAAG
CTATACCATAATAAAATCTAAAATTAAGGAATATCATGGGACCAAATAATTCCATTCCAGTTTTTTAAAGTTTCT
TGCATTTATTATTCTCAAAAGTTTTTTCTAAGTTAAACAGTCAGTATGCAATCTTAATATATGCTTTCTTTTGCA
TGGACATGGGCCAGGTTTTTCAAAAGGAATATAAACAGGATCTCAAACTTGATTAAATGTTAGACCACAGAAGTG
GAATTTGAAAGTATAATGCAGTACATTAATATTCATGTTCATGGAACTGAAAGAATAAGAACTTTTTCACTTCAG
TCCTTTTCTGAAGAGTTTGACTTAGAATAATGAAGGTAACTAGAAAGTGAGTTAATCTTGTATGAGGTTGCATTG
ATTTTTTAAGGCAATATATAATTGAAACTACTGTCCAATCAAAGGGGAAATGTTTTGATCTTTAGATAGCATGCA
AAGTAAGACCCAGCATTTTAAAAGCCCTTTTTAAAAACTAGACTTCGTACTGTGAGTATTGCTTATATGTCCTTA
TGGGGATGGGTGCCACAAATAGAAAATATGACCAGATCAGGGACTTGAATGCACTTTTGCTCATGGTGAATATAG
ATGAACAGAGAGGAAAATGTATTTAAAAGAAATACGAGAAAAGAAAATGTGAAAGTTTTACAAGTTAGAGGGATG
GAAGGTAATGTTTAATGTTGATGTCATGGAGTGACAGAATGGCTTTGCTGGCACTCAGAGCTCCTCACTTAGCTA
TATTCTGAGACTTTGAAGAGTTATAAAGTATAACTATAAAACTAATTTTTCTTACACACTAAATGGGTATTTGTT
CAAAATAATGAAGTTATGGCTTCACATTCATTGCAGTGGGATATGGTTTTTATGTAAAACATTTTTAGAACTCCA
GTTTTCAAATCATGTTTGAATCTACATTCACTTTTTTTTGTTTTCTTTTTTGAGACGGAGTCTCGCTCTGCCGCC
CAGGCTGGAGTGCAGTGGCGCGATCTCGGCTCACTGCAAGCTCTGCCTCCCAGGTTCACACCATTCTCCTGCCTC
AGCCTCCCGAGTAGCTGGGACTACAGGTGCCCACCACCACGCCTGGCTAGTTTTTGTATTTTTAGTAGAGACGC
AGTTTCACCGTGTTAGCCAGGATGGTCTCGATCTCCTGACCTTGTGATCTGCCCGCCTCGGCCTCCCAAAGTGCT
GGGATTACAGGCGTGAGCCACCGCGCCCAGCCTACATTCACTTCTAAAGTCTATGTAATGGTGGTCATTTTTTCC
CTTTTAGAATACATTAAATGGTTGATTTGGGGAGGAAAACTTATTCTGAATATTAACGGTGGTGAAAAGGGGACA
GTTTTTACCCTAAAGTGCAAAAGTGAAACATACAAAATAAGACTAATTTTTAAGAGTAACTCAGTAATTTCAAAA
TACAGATTTGAATAGCAGCATTAGTGGTTTGAGTGTCTAGCAAAGGAAAAATTGATGAATAAAATGAAGGTCTGG
TGTATATGTTTTAAAATACTCTCATATAGTCACACTTTAAATTAAGCCTTATATTAGGCCCCTCTATTTTCAGGA

FIGURE 265B

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TATAATTCTTAACTATCATTATTTACCTGATTTTAATCATCAGATTCGAAATTCTGTGCCATGGCGTATATGTTC
AAATTCAAACCATTTTTAAAATGTGAAGATGGACTTCATGCAAGTTGGCAGTGGTTCTGGTACTAAAAATTGTGG
TTGTTTTTTCTGTTTACGTAACCTGCTTAGTATTGACACTCTCTACCAAGAGGGTCTTCCTAAGAAGAGTGCTGT
CATTATTTCCTCTTATCAACAACTTGTGACATGAGATTTTTTAAGGGCTTTATGTGAACTATGATATTGTAATTT
TTCTAAGCATATTCAAAAGGGTGACAAAATTACGTTTATGTACTAAATCTAATCAGGAAAGTAAGGCAGGAAAAG
TTGATGGTATTCATTAGGTTTTAACTGAATGGAGCAGTTCCTTATATAATAACAATTGTATAGTAGGGATAAAAC
ACTAACTTAATGTGTATTCATTTTAAATTGTTCTGTATTTTTAAATTGCCAAGAAAAACAACTTTGTAAATTTGG
AGATATTTTCCAACAGCTTTTCGTCTTCAGTGTCTTAATGTGGAAGTTAACCCTTACCAAAAAAGGAAGTTGGCA
AAAACAGCCTTCTAGCACACTTTTTTAAATGAATAATGGTAGCCTAAACTTAATATTTTTATAAAGTATTGTAAT
ATTGTTTTGTGGATAATTGAAATAAAAAGTTCTCATTGAATGCACCTATTAAAAAAAAAAAAAAAAAAA
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FIGURE 266

MGCIKSKENKSPAIKYRPENTPEPVSTSVSHYGAEPTTVSPCPSSSAKGTAVNFSSLSMTPFGGSSGVTPFGGAS
SSFSVVPSSYPAGLTGGVTIFVALYDYEARTTEDLSFKKGERFQIINNTEGDWWEARSIATGKNGYIPSNYVAPA
DSIQAEEWYFGKMGRKDAERLLLNPGNQRGIFLVRESETTKGAYSLSIRDWDEIRGDNVKHYKIRKLDNGGYYIT
TRAQFDTLQKLVKHYTEHADGLCHKLTTVCPTVKPQTQGLAKDAWEIPRESLRLEVKLGQGCFGEVWMGTWNGTT
KVAIKTLKPGTMMPEAFLQEAQIMKKLRHDKLVPLYAVVSEEPIYIVTEFMSKGSLLDFLKEGDGKYLKLPQLVD
MAAQIADGMAYIERMNYIHRDLRAANILVGENLVCKIADFGLARLIEDNEYTARQGAKFPIKWTAPEAALYGRFT
IKSDVWSFGILQTELVTKGRVPYPGMVNREVLEQVERGYRMPCPQGCPESLHELMNLCWKKDPDERPTFEYIQSF
LEDYFTATEPQYQPGENL

FIGURE 267A

AGATTTGATA**ATG**GGCTGCATTAAAAGTAAAGAAAACAAAAGTCCAGCCATTAAATACAGACCTGAAAATACTCC
AGAGCCTGTCAGTACAAGTGTGAGCCATTATGGAGCAGAACCCACTACAGTGTCACCATGTCCGTCATCTTCAGC
AAAGGGAACAGCAGTTAATTTCAGCAGTCTTTCCATGACACCATTTGGAGGATCCTCAGGGGTAACGCCTTTTGG
AGGTGCATCTTCCTCATTTTCAGTGGTGCCAAGTTCATATCCTGCTGGTTTAACAGGTGGTGTTACTATATTTGT
GGCCTTATATGATTATGAAGCTAGAACTACAGAAGACCTTTCATTTAAGAAGGGTGAAAGATTTCAAATAATTAA
CAATACGGAAGGAGATTGGTGGGAAGCAAGATCAATCGCTACAGGAAAGAATGGTTATATCCCGAGCAATTATGT
AGCGCCTGCAGATTCCATTCAGGCAGAAGAATGGTATTTTGGCAAAATGGGGAGAAAAGATGCTGAAAGATTACT
TTTGAATCCTGGAAATCAACGAGGTATTTTCTTAGTAAGAGAGAGTGAAACAACTAAAGGTGCTTATTCCCTTTC
TATTCGTGATTGGGATGAGATAAGGGGTGACAATGTGAAACACTACAAAATTAGGAAACTTGACAATGGTGGATA
CTATATCACAACCAGAGCACAATTTGATACTCTGCAGAAATTGGTGAAACACTACACAGAACATGCTGATGGTTT
ATGCCACAAGTTGACAACTGTGTGTCCAACTGTGAAACCTCAGACTCAAGGTCTAGCAAAAGATGCTTGGGAAAT
CCCTCGAGAATCTTTGCGACTAGAGGTTAAACTAGGACAAGGATGTTTCGGCGAAGTGTGGATGGGAACATGGAA
TGGAACCACGAAAGTAGCAATCAAAACACTAAAACCAGGTACAATGATGCCAGAAGCTTTCCTTCAAGAAGCTCA
GATAATGAAAAAATTAAGACATGATAAACTTGTTCCACTATATGCTGTTGTTTCTGAAGAACCAATTTACATTGT
CACTGAATTTATGTCAAAAGGAAGCTTATTAGATTTCCTTAAGGAAGGAGATGGAAAGTATTTGAAGCTTCCACA
GCTGGTTGATATGGCTGCTCAGATTGCTGATGGTATGGCATATATTGAAAGAATGAACTATATTCACCGAGATCT
TCGGGCTGCTAATATTCTTGTAGGAGAAAATCTTGTGTGCAAAATAGCAGACTTTGGTTTAGCAAGGTTAATTGA
AGACAATGAATACACAGCAAGACAAGGTGCAAAATTTCCAATCAAATGGACAGCTCCTGAAGCTGCACTGTATGG
TCGGTTTACAATAAAGTCTGATGTCTGGTCATTTGGAATTCTGCAAACAGAACTAGTAACAAAGGGCCGAGTGCC
ATATCCAGGTATGGTGAACCGTGAAGTACTAGAACAAGTGGAGCGAGGATACAGGATGCCGTGCCCTCAGGGCTG
TCCAGAATCCCTCCATGAATTGATGAATCTGTGTTGGAAGAAGGACCCTGATGAAGACCAACATTTGAATATAT
TCAGTCCTTCTTGGAAGACTACTTCACTGCTACAGAGCCACAGTACCAGCCAGGAGAAAATTTA**TAA**TTCAAGTA
GCCTATTTTATATGCACAAATCTGCCAAAATATAAAGAACTTGTGTAGATTTCTACAGGAATCAAAAGAAGAAA
ATCTTCTTTACTCTGCATGTTTTTAATGGTAAACTGGAATCCCAGATATGGTTGCACAAAACCACTTTTTTTTCC
CCAAGTATTAAACTCTAATGTACCAATGATGAATTTATCAGCGTATTTCAGGGTCCAAACAAAATAGAGCTAAGA
TACTGATGACAGTGTGGGTGACAGCATGGTAATGAAGGACAGTGAGGCTCCTGCTTATTTATAAATCATTTCCTT
TCTTTTTTTCCCCAAAGTCAGAATTGCTCAAAGAAAATTATTTATTGTTACAGATAAAACTTGAGAGATAAAAAG
CTATACCATAATAAAATCTAAAATTAAGGAATATCATGGGACCAAATAATTCCATTCCAGTTTTTTAAAGTTTCT
TGCATTTATTATTCTCAAAAGTTTTTTCTAAGTTAAACAGTCAGTATGCAATCTTAATATATGCTTTCTTTTGCA
TGGACATGGGCCAGGTTTTTCAAAAGGAATATAAACAGGATCTCAAACTTGATTAAATGTTAGACCACAGAAGTG
GAATTTGAAAGTATAATGCAGTACATTAATATTCATGTTCATGGAACTGAAAGAATAAGAACTTTTTCACTTCAG
TCCTTTTCTGAAGAGTTTGACTTAGAATAATGAAGGTAACTAGAAAGTGAGTTAATCTTGTATGAGGTTGCATTG
ATTTTTTAAGGCAATATATAATTGAAACTACTGTCCAATCAAAGGGGAAATGTTTTGATCTTTAGATAGCATGCA
AAGTAAGACCCAGCATTTTAAAAGCCCTTTTTAAAAACTAGACTTCGTACTGTGAGTATTGCTTATATGTCCTTA
TGGGGATGGGTGCCACAAATAGAAAATATGACCAGATCAGGGACTTGAATGCACTTTTGCTCATGGTGAATATAG
ATGAACAGAGAGGAAAATGTATTTAAAAGAAATACGAGAAAGAAAATGTGAAAGTTTTACAAGTTAGAGGGATG
GAAGGTAATGTTTAATGTTGATGTCATGGAGTGACAGAATGGCTTTGCTGGCACTCAGAGCTCCTCACTTAGCTA
TATTCTGAGACTTTGAAGAGTTATAAAGTATAACTATAAACTAATTTTTCTTACACACTAAATGGGTATTTGTT
CAAAATAATGAAGTTATGGCTTCACATTCATTGCAGTGGGATATGGTTTTTATGTAAACATTTTTAGAACTCCA
GTTTTCAAATCATGTTTGAATCTACATTCACTTTTTTTTGTTTTCTTTTTGAGACGGAGTCTCGCTCTGCCGCC
CAGGCTGGAGTGCAGTGGCGCGATCTCGGCTCACTGCAAGCTCTGCCTCCCAGGTTCACACCATTCTCCTGCCTC
AGCCTCCCGAGTAGCTGGGACTACAGGTGCCCACCACCACGCCTGGCTAGTTTTTGTATTTTTAGTAGAGACGC
AGTTTCACCGTGTTAGCCAGGATGGTCTCGATCTCCTGACCTTGTGATCTGCCCGCCTCGGCCTCCCAAAGTGCT
GGGATTACAGGCGTGAGCCACCGCGCCCAGCCTACATTCACTTCTAAAGTCTATGTAATGGTGGTCATTTTTCC
CTTTTAGAATACATTAAATGGTTGATTTGGGGAGGAAAACTTATTCTGAATATTAACGGTGGTGAAAAGGGGACA
GTTTTTACCCTAAAGTGCAAAAGTGAAACATACAAAATAAGACTAATTTTTAAGAGTAACTCAGTAATTTCAAAA
TACAGATTTGAATAGCAGCATTAGTGGTTTGAGTGTCTAGCAAAGGAAAAATTGATGAATAAAATGAAGGTCTGG
TGTATATGTTTTAAAAATACTCTCATATAGTCACACTTTAAATTAAGCCTTATATTAGGCCCCTCTATTTTCAGGA

FIGURE 267B

TATAATTCTTAACTATCATTATTTACCTGATTTTAATCATCAGATTCGAAATTCTGTGCCATGGCGTATATGTTC
AAATTCAAACCATTTTTAAAATGTGAAGATGGACTTCATGCAAGTTGGCAGTGGTTCTGGTACTAAAAATTGTGG
TTGTTTTTTCTGTTTACGTAACCTGCTTAGTATTGACACTCTCTACCAAGAGGGTCTTCCTAAGAAGAGTGCTGT
CATTATTTCCTCTTATCAACAACTTGTGACATGAGATTTTTTAAGGGCTTTATGTGAACTATGATATTGTAATTT
TTCTAAGCATATTCAAAAGGGTGACAAAATTACGTTTATGTACTAAATCTAATCAGGAAAGTAAGGCAGGAAAAG
TTGATGGTATTCATTAGGTTTTAACTGAATGGAGCAGTTCCTTATATAATAACAATTGTATAGTAGGGATAAAAC
ACTAACTTAATGTGTATTCATTTTAAATTGTTCTGTATTTTTAAATTGCCAAGAAAAACAACTTTGTAAATTTGG
AGATATTTTCCAACAGCTTTTCGTCTTCAGTGTCTTAATGTGGAAGTTAACCCTTACCAAAAAAGGAAGTTGGCA
AAAACAGCCTTCTAGCACACTTTTTTAAATGAATAATGGTAGCCTAAACTTAATATTTTTATAAAGTATTGTAAT
ATTGTTTTGTGGATAATTGAAATAAAAAGTTCTCATTGAATGCACCTATTAAAAAAAAAAAAAAAAAAA

FIGURE 268

MGCIKSKENKSPAIKYRPENTPEPVSTSVSHYGAEPTTVSPCPSSSAKGTAVNFSSLSMTPFGGSSGVTPFGGAS
SSFSVVPSSYPAGLTGGVTIFVALYDYEARTTEDLSFKKGERFQIINNTEGDWWEARSIATGKNGYIPSNYVAPA
DSIQAEEWYFGKMGRKDAERLLLNPGNQRGIFLVRESETTKGAYSLSIRDWDEIRGDNVKHYKIRKLDNGGYYIT
TRAQFDTLQKLVKHYTEHADGLCHKLTTVCPTVKPQTQGLAKDAWEIPRESLRLEVKLGQGCFGEVWMGTWNGTT
KVAIKTLKPGTMMPEAFLQEAQIMKKLRHDKLVPLYAVVSEEPIYIVTEFMSKGSLLDFLKEGDGKYLKLPQLVD
MAAQIADGMAYIERMNYIHRDLRAANILVGENLVCKIADFGLARLIEDNEYTARQGAKFPIKWTAPEAALYGRFT
IKSDVWSFGILQTELVTKGRVPYPGMVNREVLEQVERGYRMPCPQGCPESLHELMNLCWKKDPDERPTFEYIQSF
LEDYFTATEPQYQPGENL

FIGURE 269

CTCGGCCCCGGGCTGCCGCGCCAGCCCGTCTCCGCGGCGGGGGACCGGGCTGCCTTGGCCCCTCAGCGCTCGCGT
CTTTTCCGGCAGTTGGAACGCTTCCTGTTGTCCTCACCCGTAACCGCCTGTTGCCCCCTGTCTCAGAGTCCCTCA
CGCGTCCCCTCCCGTCTTTGGCTCGTTGGCTGCCGCCGCCGGGGCTTCGCCAGCCTTCAAGTCGAGACTACTGGC
CGAAGGGGCGTCTGCGGCTCTCCGCCGTCCCCAGCCCTGCCTCTCCCTGGGCTCTGCAGCC**ATG**GCAATGACAGG
CTCAACACCTTGCTCATCCATGAGTAACCACACAAAGGAAAGGGTGACAATGACCAAAGTGACACTGGAGAATTT
TTATAGCAACCTTATCGCTCAACATGAAGAACGAGAAATGAGACAAAAGAAGTTAGAAAAGGTGATGGAAGAAGA
AGGCCTAAAAGATGAGGAGAAACGACTCCGGAGATCAGCACATGCTCGGAAGGAAACAGAGTTTCTTCGTTTGAA
GAGAACAAGACTTGGATTGGAAGATTTTGAGTCCTTAAAAGTAATAGGCAGAGGAGCATTTGGTGAGGTACGGCT
TGTTCAGAAGAAAGATACGGGACATGTGTATGCAATGAAAATACTCCGTAAAGCAGATATGCTTGAAAAAGAGCA
GGTTGGCCACATTCGTGCGGAGCGTGACATTCTAGTGGAGGCAGACAGTTTGTGGGTTGTGAAAATGTTCTATAG
TTTTCAGGATAAGCTAAACCTCTACCTAATCATGGAGTTCCTGCCTGGAGGGGACATGATGACCTTGTTGATGAA
AAAAGACACTCTGACAGAAGAGGAGACTCAGTTTTATATAGCAGAAACAGTATTAGCCATAGACTCTATTCACCA
ACTTGGATTCATCCACAGAGACATCAAACCAGACAACCTTCTTTTGGACAGCAAGGGCCATGTGAAACTTTCTGA
CTTTGGTCTTTGCACAGGACTGAAAAAAGCACATAGGACAGAATTTTATAGGAATCTGAACCACAGCCTCCCCAG
TGATTTCACTTTCCAGAACATGAATTCCAAAAGGAAAGCAGAAACCTGGAAAAGAAATAGACGTCAGCTAGCCTT
CTCCACAGTAGGCACTCCTGACTACATTGCTCCTGAGGTGTTCATGCAGACCGGGTACAACAAGCTCTGTGATTG
GTGGTCGCTTGGGGTGATCATGTATGAGATGCTCATCGGCTACCCACCTTTCTGTTCTGAGACCCCTCAAGAGAC
ATATAAGAAGGTGATGAACTGGAAAGAAACTTTGACTTTTCCTCCAGAAGTTCCCATCTCTGAGAAAGCCAAGGA
TCTAATTTTGAGGTTCTGCTGTGAATGGGAACATAGAATTGGAGCTCCTGGAGTTGAGGAAATAAAAAGTAACTC
TTTTTTTGAAGGCGTTGACTGGGAACATATCAGAGAGAGACCTGCTGCAATATCTATTGAAATCAAAAGCATTGA
TGATACCTCAAACTTCGATGAGTTTCCAGAATCTGATATTCTTAAGCCAACAGTGGCCACAAGTAATCATCCTGA
GACTGACTACAAGAACAAAGACTGGGTCTTCATCAATTACACGTACAAGCGCTTTGAGGGCCTGACTGCAAGGGG
GGCAATACCTTCCTACATGAAAGCAGCAAAA**TAG**TACTCTTGCCACGGAATCCTATGTGGAGCAGAGTTCTTTGT
ATAACATCATGCTTTTCCTCTCACACTCTTGAAGAGCTTCCAAGAAGTTGATGGAACCCACCAATATGTCATAGT
AAAGTCTCCTGAAATGTGGTAGTAAGAGGATTTTCTTCCATAATGCATCTGAAAAACTGTAAACAAAGACAACCA
TTTCTACTACGTCGGCCATAAACAGCTATCCTGCTTTGGAAGAGAAGCATCATGAGCCAATTTGATAGGTGTTTT
AAAAATAACTTGAGTTTTCCTAAGTTCATCAGAATGAAGGGGAAAAACAGCCATCATCCAACATTATTGAGATTG
TCGTGTATAGTCATCGAATATCAGCCAGTTCCTGTAATTTTGTGACACGCTCTCTGCCAAGCCCACCAAGTATTT
CCTTTATAGCTAAAAGTTCCATAGTACTAAGGAAATAAAGCAATAAAGACAGTCTCAGCAGCCAGGATTCTGGCT
GAAGGAAATGATCCGCCACCCTGAGGGTGGTGATGGTAGTTTCTACCCATACCTCAGCCTCAGGCGAGTGGCTTA
TAGCCTCCATTCATGGTGCACTTTATTTATGGTACTAAGATAAAGACTGTCAATCCATTGATTTATCTCCTCCTG
TCCCCCATCTAAAATACCCATGCTGCTTTTCTGAGTGTTGATGGGGGTTACCAGCTTGATCCACTGTTGCTCTTA
GAAGGCCCAGAAAGTCTTTGGGCATTGCCAAGAAATCCCGGATTATGTGGAAAACCCTCACTTTCTCTTCACGGC
TGTACCAGAAAATCCCTAAGACAGATCTTGCCGTGGACTAGCAATACCTGCAAGTGCTGCCAATGGGAACTCAAT
TTATTCCTGGGAACCTAACGAGGAGAGCCCAGGCCTAGGCAGGAGGCCTGGAACCCTCTTGGCTAAGGTGCTGTT
CCTGTTCCTGCAAGGTCTCCAGAACCCCTTTGGAAATGGTGAAGGAACCAGCCCAATAGAAGTACAGAGCCAGCT
GACAAGTCCTTGTAAAGCTCACTCCTCAGTCCTTGGCACAGCCATGTTTTGTCTTCTCTCTTGGTATTTCTTCTC
TCCCAACTTTAGCCATTTTGCCTTGGAATCATGATTACAATTTTTTCCTTTGCAGATGCCTTCCTGGGGGATACT
CCTCCCCACCCTAAAGGGTCGCCTGCAACTTAGGCGGATTGGGTCTCTCTGCTGTGGCGTTCTCTCTTGAGAGAC
CCTCTGAATTTTAGCACAAAGTGCCTTCTGTTTCACAGCTGCCACCACCTTTAGAGGAATTTCGTCAGAAAAATG
TGGAGGCTCCATATTAATGCATTATTTTTTAAAAAGTTTTGATAACTCTTAAAGCATCATTTGCACCTATGTGGG
AACTTTGCCTGTTGCAAAGTATTGTGGCCGAGCTGCAGCTGGGAGCCTGCTTTCTGCCAGTCTTGAGGTTCTGAA
GATCAGCTTTGAAAGGAAAGTATGTCCTAGCTTAGCCATTCAGAAGAGAAAAATGGAATATCAGAGTTACAGTTG
TCAGTGAAACTACTTTGGATTTTAACCTCTTAGAGGAAGAAAAAAGGTTAGGGAAGTGTCAACTCTGGATGAAGG
TGATGTGTTTGCCTCTCAGTCTTTCATTCATAGCCTGCTAGTGAAAAGGAAGTAAATGAGATTCTTTTGTGTGAC
TTTGTAGTCTCTTTGTATTACCAAATAGTTGGGGTGTTGACTCCTGTGTGTTTTGCAAGAATGTGTGGTAAGCCT
GGGTAAAGAGAAGGAACTGCGGTGTTGGGAGAGTCTTTGTGTTGGGGAGTGGCAGGGGATGATTTGTTTCAGGGG
AAAATGCCCACATTTTAACTTTTAAACTTCTGAATAAACTGTGTAAAACAAAAAAAAAAAAAAAAA

FIGURE 270

MAMTGSTPCSSMSNHTKERVTMTKVTLENFYSNLIAQHEEREMRQKKLEKVMEEEGLKDEEKRLRRSAHARKETE
FLRLKRTRLGLEDFESLKVIGRGAFGEVRLVQKKDTGHVYAMKILRKADMLEKEQVGHIRAERDILVEADSLWVV
KMFYSFQDKLNLYLIMEFLPGGDMMTLLMKKDTLTEEETQFYIAETVLAIDSIHQLGFIHRDIKPDNLLLDSKGH
VKLSDFGLCTGLKKAHRTEFYRNLNHSLPSDFTFQNMNSKRKAETWKRNRRQLAFSTVGTPDYIAPEVFMQTGYN
KLCDWWSLGVIMYEMLIGYPPFCSETPQETYKKVMNWKETLTFPPEVPISEKAKDLILRFCCEWEHRIGAPGVEE
IKSNSFFEGVDWEHIRERPAAISIEIKSIDDTSNFDEFPESDILKPTVATSNHPETDYKNKDWVFINYTYKRFEG
LTARGAIPSYMKAAK

FIGURE 271A

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GGACTGTGTGTGTCTGGCTGTAGCAGACGCGAGGCGGCGACGAGGCGCCGGGGACCCGCGCGAGGGGCGGCCGGG
AGGCGGCGGCGGCGGCCGCCAGAAGTAGCAGCAGGACCGGCGGCGGCGACGGCAGCCCTGAAATGCATTTTCCTC
TCCAGCGGCCATGTTAACCAGGAAACCTTCGGCCGCCGCTCCCGCCGCCTACCCGACCGGCCGAGGTGGGGACAG
CGCCGTTCGTCAGCTTCAGGCTTCCCCGGGGCTCGGTGCAGGGCCCACCCGGAGCGGAGTGGGGACTGGCCCGCC
CTCCCCCATCGCCCTGCCGCCTCTCCGGGCCAGCAACGCTGCCGCCGCAGCCCACACGATTGGCGGCAGTAAGCA
CACAATGAATGATCACCTGCATGTCGGCAGCCACGCTCACGGACAGATCCAGGTTCAACAGTTGTTTGAGGATAA
CAGTAACAAGCGGACAGTGCTCACGACACAACCAAATGGGCTTACAACAGTGGGCAAAACGGGCTTGCCAGTGGT
GCCAGAGCGGCAGCTGGACAGCATTCATAGACGGCAGGGGAGCTCCACCTCTCTAAAGTCCATGGAAGGCATGGG
GAAGGTGAAAGCCACCCCCATGACACCTGAACAAGCAATGAAGCAATACATGCAAAAACTCACAGCCTTCGAACA
CCATGAGATTTTCAGCTACCCTGAAATATATTTCTTGGGTCTAAATGCTAAGAAGCGCCAGGGCATGACAGGTGG
GCCCAACAATGGTGGCTATGATGATGACCAGGGATCATATGTGCAGGTGCCCCACGATCACGTGGCTTACAGGTA
TGAGGTCCTCAAGGTCATTGGGAAGGGGAGCTTTGGGCAGGTGGTCAAGGCCTACGATCACAAAGTCCACCAGCA
CGTGGCCCTAAAGATGGTGCGGAATGAGAAGCGCTTCCACCGGCAAGCAGCGGAGGAGATCCGAATCCTGGAACA
CCTGCGGAAGCAGGACAAGGATAACACAATGAATGTCATCCATATGCTGGAGAATTTCACCTTCCGCAACCACAT
CTGCATGACGTTTGAGCTGCTGAGCATGAACCTCTATGAGCTCATCAAGAAGAATAAATTCCAGGGCTTCAGTCT
GCCTTTGGTTCGCAAGTTTGCCCACTCGATTCTGCAGTGCTTGGATGCTTTGCACAAAAACAGAATAATTCACTG
TGACCTTAAGCCCGAGAACATTTTGTTAAAGCAGCAGGGTAGAAGCGGTATTAAAGTAATTGATTTTGGCTCCAG
TTGTTACGAGCATCAGCGTGTCTACACGTACATCCAGTCGCGTTTTTACCGGGCTCCAGAAGTGATCCTTGGGGC
CAGGTATGGCATGCCCATTGATATGTGGAGCCTGGGCTGCATTTTAGCAGAGCTCCTGACGGGTTACCCCCTCTT
GCCTGGGGAAGATGAAGGGGACCAGCTGGCCTGTATGATTGAACTGTTGGGCATGCCCTCACAGAAACTGCTGGA
TGCATCCAAACGAGCCAAAAATTTTGTGAGCTCCAAGGGTTATCCCCGTTACTGCACTGTCACGACTCTCTCAGA
TGGCTCTGTGGTCCTAAACGGAGGCCGTTCCCGGAGGGGGAAACTGAGGGGCCCACCGGAGAGCAGAGAGTGGGG
GAACGCGCTGAAGGGGTGTGATGATCCCCTTTTCCTTGACTTCTTAAAACAGTGTTTAGAGTGGGATCCTGCAGT
GCGCATGACCCCAGGCCAGGCTTTGCGGCACCCCTGGCTGAGGAGGCGGTTGCCAAAGCCTCCCACCGGGGAGAA
AACGTCAGTGAAAAGGATAACTGAGAGCACCGGTGCTATCACATCTATATCCAAGTTACCTCCACCTTCTAGCTC
AGCTTCCAAACTGAGGACTAATTTGGCGCAGATGACAGATGCCAATGGGAATATTCAGCAGAGGACAGTGTTGCC
AAAACTTGTTAGCTGAGCTCACGTCCCTGATGCTGGTAACCTGAAAGATACGACATTGCTGAGCCTTACTGGGT
TGAAAAGGAGTAGCTCAGACCTGTTTTTATTTGCTCAATAACTCTACTCATTTGTATCTTTTCAGCACTTAATTT
TAATGTAAGAAAGTTGTTCATTTTGTTTTTATAAAATACATGAGGACAATGCTTTAAGTTTTTATACTTTCAGAA
ACTTTTTGTGTTCTAAAAGTACAATGAGCCTTACTGTATTTAGTGTGGCAGAATAATAACATCAGTGGCAGGCCA
CTGATTACTTCATGACTGCCACGCATTTACAGATTGGTGTCAAAGACATTCACTATGTTTTTATGGTTCATGTTA
TATCCTCCCCAGGGTGACAGCCCCTTAAGGCCCTCCTTTTCCCTCCATGCTCCAGGTCCATGCACAGGTGTAGCA
TGTCCTGCTTCCGTTTTTCATAAATTAATCTGGGTGTTGGGGGTAGTGGGAGGAGAACGGTCAGAATCAAAGTGA
CATTCTAAGAAAAACTGTACCTTAGAGATTTTCCTCTAGTGCTCAAACAAATACAAAATAAGATCCCCAAGGTTT
AAACTGCCCAGTTAGCATTCTGACATTCTAAAAGCCGGCAAAGCAGCTTTTAGTGGATAAATGGGAATGGAAACG
TGTGTGTTCCTCCAAATTTTCTAGTATGATCGGTGAGCTGTTTTGTAAAGAAGCCTCATATTACAGAGTTGCTTT
TGCACCTAAATTTAGAATTGTATTCCATGAACTGTTCCTCCCTTTTCTCTGCTTTTCTCCTCTCTGTTCCTCTTT
TAATACCACACGTCTGTTGCTTGCATTAGTTTGTCTTCTTCCTTCAGCTGTGTATCCCAGACTGTTAATACAGA
AAAGAGACATTTCAGCTGTGATTATGACCATTGTTTCATATTCCAATTAAAAAAAGAACAGCAGCCTAGCTACTT
AAGGTGGGGATTTCATAGTTCCAAAGAAGATTTAGCAGATTAGAGTGAGTTCACACTTTTCAGGTGCCACTGTAA
GGTTCTCTCAGCCTGGGAAACTATCAACTCTTTCTTTAAAAAGAAAGAGGGTTGAAAATCCTCTGGACGAACAGA
AGTCACTTTGGCTGTTCAGTAAGGCCAATGTTAACAACACGTTTAGAGGAGGAAAAGTTCAACCTCAAGTTAAAT
GGTTTGACTTATTCTTCGTATCATTAGAAGAACCCCAGAGATAGCATTCCTCTATTTTATTTTACTTTCTTTTGG
ATTGCACTGATTGTTTTGTGGGAATGACACTTTATCTGGCAAAGTAACTGAGAGTTTGGTAAAAGAATATTTTC
TTCTCTGAATAATAATTATTTTCACAGTGAAAATTTCAGTATTTTATCACTAATGTATGAGCAATGATCTATATC
AATTTCAAGGCACGTGAAAAAAATTTTTTAGTATGTGCAATTTAATATAGAAAGATTTCTGCCTGTTTGGACAAT
AGGTTTTGGGTAGTACAGATTAGGATAAGTAAGCTTATATATGCACAGAGATTATTGTATTACCTGTAAATTGAT
TTACAAGTACTTAAAAGCGTGGTCCCCAGTGAGGCCAAGAAAGTTTCCGGTTAAGTTCTTTAATAATAATCCTAC
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FIGURE 271B

AGTTTATCTTAAGAA

FIGURE 272

MLTRKPSAAAPAAYPTGRGGDSAVRQLQASPGLGAGPTRSGVGTGPPSPIALPPLRASNAAAAAHTIGGSKHTMN
DHLHVGSHAHGQIQVQQLFEDNSNKRTVLTTQPNGLTTVGKTGLPVVPERQLDSIHRRQGSSTSLKSMEGMGKVK
ATPMTPEQAMKQYMQKLTAFEHHEIFSYPEIYFLGLNAKKRQGMTGGPNNGGYDDDQGSYVQVPHDHVAYRYEVL
KVIGKGSFGQVVKAYDHKVHQHVALKMVRNEKRFHRQAAEEIRILEHLRKQDKDNTMNVIHMLENFTFRNHICMT
FELLSMNLYELIKKNKFQGFSLPLVRKFAHSILQCLDALHKNRIIHCDLKPENILLKQQGRSGIKVIDFGSSCYE
HQRVYTYIQSRFYRAPEVILGARYGMPIDMWSLGCILAELLTGYPLLPGEDEGDQLACMIELLGMPSQKLLDASK
RAKNFVSSKGYPRYCTVTTLSDGSVVLNGGRSRRGKLRGPPESREWGNALKGCDDPLFLDFLKQCLEWDPAVRMT
PGQALRHPWLRRRLPKPPTGEKTSVKRITESTGAITSISKLPPPSSSASKLRTNLAQMTDANGNIQQRTVLPKLV
S

FIGURE 273A

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CAGCTGCCAGCCGAGGAGGCGCGGCGGAGAGGGGACTGCGGTCAGCTGCGTCCACTTGGGGCTGTGCGGCGGTCC
CGCGCCCGGCGATGTTCCCGGGCACTCCCTGAGTAGCGGCAGCTTATCCCCCGCCCGCTAGCCCGCCCTGGTCCC
CGGCTCGCTCGCTGGCTGGCGCGGCCCCGGCCCCGCTCTGCGTCGGCCCCGCCGCGGTGGAGGCGCGCGAGGGGG
ACGCGGCCGGGGATGAGCGGATTGCGGGTGAACTCGCCGCCCGGGGGCCCCGCGAAGCCGTGAGCCGCTGCTTTT
CTCCGAGTCGCCGCCCTGCCCTTGGATTTGAGATCATGTCCATCCACATCGTGGCGCTGGGGAACGAGGGGGACA
CATTCCACCAGGACAACCGGCCGTCGGGGCTTATCCGCACTTACCTGGGGAGAAGCCCTCTGGTCTCCGGGGACG
AGAGCAGCTTGTTGCTGAACGCGGCCAGCACGGTCGCGCGTCCGGTGTTCACCGAGTATCAGGCCAGTGCGTTTG
GGAATGTCAAGCTGGTGGTCCACGACTGTCCCGTCTGGGACATATTTGACAGTGATTGGTACACTTCTCGAAATC
TAATTGGGGGCGCTGACATCATTGTGATCAAATACAACGTTAATGACAAGTTTTCATTCCATGAAGTAAAGGATA
ATTATATTCCAGTGATAAAAAGAGCATTAAATTCAGTTCCAGTAATTATTGCTGCTGTTGGTACCAGACAAAATG
AAGAGTTACCTTGTACATGCCCACTATGTACCTCAGACAGAGGGAGCTGTGTTAGTACAACTGAAGGGATCCAAC
TTGCAAAAGAACTAGGAGCAACCTATCTTGAACTCCACAGCCTTGATGACTTCTACATAGGAAAGTATTTTGGAG
GAGTGTTGGAGTATTTTATGATTCAAGCCTTAAATCAGAAGACAAGTGAAAAAATGAAGAAAAGAAAAATGAGCA
ACTCCTTTCATGGAATTAGACCACCTCAACTTGAACAACCAGAAAAAATGCCTGTCTTAAAGGCTGAAGCGTCAC
ATTATAACTCTGACTTAAATAACTTGCTGTTCTGCTGCCAGTGTGTGGACGTGGTATTTTATAACCCCGATTTAA
AGAAAGTTGTAGAGGCCCACAAGATCGTTCTCTGCGCTGTAAGCCATGTTTTCATGCTGCTTTTCAATGTGAAGA
GTCCCACTGACATTCAGGATTCCAGTATCATCCGAACTACCCAGGATCTTTTTGCTATAAACAGAGATACTGCAT
TTCCAGGTGCTAGCCATGAATCTTCAGGCAACCCACCATTACGAGTCATTGTTAAAGACGCCCTCTTCTGTTCTT
GTTTATCAGACATCCTTCGCTTCATTTATTCAGGTGCTTTTCAGTGGGAAGAATTGGAAGAAGATATCAGGAAGA
AGTTGAAAGATTCTGGGGATGTTTCAAATGTAATCGAGAAAGTTAAATGCATTTTAAAAACACCAGGAAAGATTA
ATTGCCTAAGGAATTGCAAAACCTATCAAGCCAGAAAACCTTTGTGGTTTTATAACACTTCCCTCAAGTTTTTCC
TTAATAAGCCGATGCTTGCCGATGTTGTCTTCGAAATTCAAGGTACGACAGTGCCAGCCCACAGGGCCATCCTGG
TGGCCCGTTGTGAAGTGATGGCAGCCATGTTTAATGGTAATTACATGGAAGCAAAGAGTGTCCTGATTCCCGTTT
ATGGTGTTTCCAAAGAGACTTTCTTGTCATTTTTAGAATACCTGTACACAGACTCCTGCTGCCCAGCTGGCATAT
TCCAGGCCATGTGTCTCCTGATCTGTGCCGAGATGTACCAAGTGTCCAGACTGCAGCACATCTGTGAGCTGTTCA
TCATTACCCAGCTGCAGAGCATGCCAAGCAGGGAACTGGCATCCATGAACCTTGATATAGTTGACCTGCTTAAAA
AGGCCAAGTTTCACCACTCTGATTGCCTTTCAACCTGGCTACTTCATTTCATTGCTACTAACTACCTCATCTTCA
GTCAAAAGCCTGAATTTCAGGATCTTTCAGTGGAAGAACGCAGTTTGTTGAAAAGCACAGATGGCCGTCGAATA
TGTACTTGAAGCAGCTTGCGGAATACAGGAAGTATATTCACTCCCGGAAATGTCGTTGCTTAGTAATGTAACCTG
GAGCTTTTATACACTACATTTCTTTTTTATTATTATGAAGAATGGGATACCTCCAGGTTCCAGTAAAATTCTTCT
GACCGAAACCAATGTGGGTGTTAGAAAAATTACCATATAGCTTAATATGTTTATTAGTTCTCTTTGGAAAAAAAC
TACCACTGTGGTCTTAAAAGGGAACAAAATATACCATAGGCTAAAACTAAGGCTTTCACTCTAGAATGCAAAGCT
GTTTTGCAGCTGTTTTCCCTTAAAGATGTCCTGTTGCTTTAGTGATATTTAGACCCCTCTCAGTTAAGAAATGCT
TAGATTAAAAAAAAAAAATTACGTAGGATTAATACAGAAATTTAATCATGTCTGATTAATTGCTCTATTAAAATA
AGGGGCATTTAAAGACCCAGCATAACCATTTGTATAATGAGAAATCTAGGGGAAAACCAATCAGTCCAACATGAG
ATTTTAGGAATAGAAATTTGCCGGCCATTTGGAAAGTGAAATGCCACTTAGTTCTCAATTGATGACAGTGTTTGA
ATCATCATAAAAAAAATACCTGCTTTTCATCTGGACAACCCAATTGAGCCACTTTATCTCCTTTTGGCAATCTGA
GTAGGCGGGGAACCTAGGCAGGGCTGGCTTTCTTAGCGTGTAACTTGTGTAGCAGCACAGGGCCCACACTTAGAA
GGACCCCACACTTGGTTCAAGGCTCTGCTATAGCGGAAATTCTTAATAATGTTTGAAGAAGGGCCCCATGATTTC
ATTTTGTGCTGAGCCCTCAAAATTATGTCTGTTTCGTGGTGGGAAATATCCTATGTTTTCTTGCTCAAACACCTT
TCTCTCTGAAAGCAGAAAAAGGCACTGATATAAAGGGAAGAGAAGGAGGCTCACCGGAGGGAAGAGAACATAGTG
AAGATTCCCGCCTTTGGGGAGGTCTGGACCACCCAGGGCCTCCACTGCCACCTTGGCTGGCAAGGGAGAAATGTG
TTGTGTTGTCTTAGCTTTAAAACAGTCACAGTTCTTGCTCTATCATAGATGAACAAATACTTTCTTGATCATTCT
GTAAGACCAGGAGGTTGGTAAGAGTGACTAACCAGCCTAACTTTAATACACATGTATAAAGATGTTCACAGAGAA
AGATGCTCTGTAGAGAATTTGCTACCGAAGTTGGCTCAAGAATTTGTTTTTAGTGTTATTTACCAAGATTAGGAC
GTCAGTGGCTTAAATTCTTTGAATTCTTTTCAAGGACTGCAAGATTATTTGATAAAGAGTAGCATGAATCTTGTG
CTCTAATATTACACAGTAAGTTCAAAGAAAGGATGTAAGTCAAAGACTTGTTACATAGAGGGAAAATGGACTGGG
ATAGAGGACAGACTGATAGTTTCTTTCTTTCATATCACATGTATAGAGAAATAATTATATCAGAAACTCACAAAC
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FIGURE 273B

CTAGACATGGAAAAACAGATTACTGTCTATTGTCAGCATCATTTTCATCTGTAAGTCACTACTGGAATATATTTT
TCTTTTAATTTCCAGTGACTTTAGAATACACACAGTTTTTCCGACTTTTCAAAAATTTGATTAAATGGTTTTATA
GTATAATATTGGGACCCCATACCGTTAGCCCTTGTATGTATACCAACACTGCCAAAGTAAAACATTAGGTCAGGC
ATGGTGGCTCAGGCCTGTAATCCCAGCATTTTGGGAGGCTGAGGCAAGTGGATAACTTGAGGTCATGAGTTCGAA
ACCAGCCTGGCCAAAACAGTGAAACCCCGTCTCTACTAAAAATACAAAATTAGCCAGATGTGGTGGCGCACACCT
GTAATCCCAGCTACTCAGGAAGCTGAGGCAGGAAAATCGCTTGAACCTGGGAGGTGGAAGTTGCAGTGAGCCGAG
ATCGCACCACTGCACTCCAGCCTGGGTGACAAGAGCGAAACTCCATCTC

FIGURE 274

MSIHIVALGNEGDTFHQDNRPSGLIRTYLGRSPLVSGDESSLLLNAASTVARPVFTEYQASAFGNVKLVVHDCPV
WDIFDSDWYTSRNLIGGADIIVIKYNVNDKFSFHEVKDNYIPVIKRALNSVPVIIAAVGTRQNEELPCTCPLCTS
DRGSCVSTTEGIQLAKELGATYLELHSLDDFYIGKYFGGVLEYFMIQALNQKTSEKMKKRKMSNSFHGIRPPQLE
QPEKMPVLKAEASHYNSDLNNLLFCCQCVDVVFYNPDLKKVVEAHKIVLCAVSHVFMLLFNVKSPTDIQDSSIIR
TTQDLFAINRDTAFPGASHESSGNPPLRVIVKDALFCSCLSDILRFIYSGAFQWEELEEDIRKKLKDSGDVSNVI
EKVKCILKTPGKINCLRNCKTYQARKPLWFYNTSLKFFLNKPMLADVVFEIQGTTVPAHRAILVARCEVMAAMFN
GNYMEAKSVLIPVYGVSKETFLSFLEYLYTDSCCPAGIFQAMCLLICAEMYQVSRLQHICELFIITQLQSMPSRE
LASMNLDIVDLLKKAKFHHSDCLSTWLLHFIATNYLIFSQKPEFQDLSVEERSFVEKHRWPSNMYLKQLAEYRKY
IHSRKCRCLVM

FIGURE 275A

CAGCTGCCAGCCGAGGAGGCGCGGCGGAGAGGGGACTGCGGTCAGCTGCGTCCACTTGGGGCTGTGCGGCGGTCC
CGCGCCCGGCGATGTTCCCGGGCACTCCCTGAGTAGCGGCAGCTTATCCCCCGCCCGCTAGCCCGCCCTGGTCCC
CGGCTCGCTCGCTGGCTGGCGCGGCCCCGGCCCCGCTCTGCGTCGGCCCCGCCGCGGTGGAGGCGCGCGAGGGGG
ACGCGGCCGGGGATGAGCGGATTGCGGGTGAACTCGCCGCCCGGGGGCCCCGCGAAGCCGTGAGCCGCTGCTTTT
CTCCGAGTCGCCGCCCTGCCCTTGGATTTGAGATC**ATG**TCCATCCACATCGTGGCGCTGGGGAACGAGGGGGACA
CATTCCACCAGGACAACCGGCCGTCGGGGCTTATCCGCACTTACCTGGGGAGAAGCCCTCTGGTCTCCGGGGACG
AGAGCAGCTTGTTGCTGAACGCGGCCAGCACGGTCGCGCGTCCGGTGTTCACCGAGTATCAGGCCAGTGCGTTTG
GGAATGTCAAGCTGGTGGTCCACGACTGTCCCGTCTGGGACATATTTGACAGTGATTGGTACACTTCTCGAAATC
TAATTGGGGGCGCTGACATCATTGTGATCAAATACAACGTTAATGACAAGTTTTCATTCCATGAAGTAAAGGATA
ATTATATTCCAGTGATAAAAGAGCATTAAATTCAGTTCCAGTAATTATTGCTGCTGTTGGTACCAGACAAAATG
AAGAGTTACCTTGTACATGCCCACTATGTACCTCAGACAGAGGGAGCTGTGTTAGTACAACTGAAGGGATCCAAC
TTGCAAAAGAACTAGGAGCAACCTATCTTGAACTCCACAGCCTTGATGACTTCTACATAGGAAAGTATTTTGGAG
GAGTGTTGGAGTATTTTATGATTCAAGCCTTAAATCAGAAGACAAGTGAAAAAATGAAGAAAGAAAAATGAGCA
ACTCCTTTCATGGAATTAGACCACCTCAACTTGAACAACCAGAAAAAATGCCTGTCTTAAAGGCTGAAGCGTCAC
ATTATAACTCTGACTTAAATAACTTGCTGTTCTGCTGCCAGTGTGTGGACGTGGTATTTTATAACCCCGATTTAA
AGAAAGTTGTAGAGGCCCACAAGATCGTTCTCTGCGCTGTAAGCCATGTTTTCATGCTGCTTTTCAATGTGAAGA
GTCCCACTGACATTCAGGATTCCAGTATCATCCGAACTACCCAGGATCTTTTTGCTATAAACAGAGATACTGCAT
TTCCAGGTGCTAGCCATGAATCTTCAGGCAACCCACCATTACGAGTCATTGTTAAAGACGCCCTCTTCTGTTCTT
GTTTATCAGACATCCTTCGCTTCATTTATTCAGGTGCTTTTCAGTGGGAAGAATTGGAAGAAGATATCAGGAAGA
AGTTGAAAGATTCTGGGGATGTTTCAAATGTAATCGAGAAAGTTAAATGCATTTTAAAAACACCAGGAAAGATTA
ATTGCCTAAGGAATTGCAAAACCTATCAAGCCAGAAAACCTTTGTGGTTTTATAACACTTCCCTCAAGTTTTTCC
TTAATAAGCCGATGCTTGCCGATGTTGTCTTCGAAATTCAAGGTACGACAGTGCCAGCCCACAGGGCCATCCTGG
TGGCCCGTTGTGAAGTGATGGCAGCCATGTTTAATGGTAATTACATGGAAGCAAAGAGTGTCCTGATTCCCGTTT
ATGGTGTTTCCAAAGAGACTTTCTTGTCATTTTTAGAATACCTGTACACAGACTCCTGCTGCCCAGCTGGCATAT
TCCAGGCCATGTGTCTCCTGATCTGTGCCGAGATGTACCAAGTGTCCAGACTGCAGCACATCTGTGAGCTGTTCA
TCATTACCCAGCTGCAGAGCATGCCAAGCAGGGAACTGGCATCCATGAACCTTGATATAGTTGACCTGCTTAAAA
AGGCCAAGTTTCACCACTCTGATTGCCTTTCAACCTGGCTACTTCATTTCATTGCTACTAACTACCTCATCTTCA
GTCAAAAGCCTGAATTTCAGGATCTTTCAGTGGAAGAACGCAGTTTTGTTGAAAAGCACAGATGGCCGTCGAATA
TGTACTTGAAGCAGCTTGCGGAATACAGGAAGTATATTCACTCCCGGAAATGTCGTTGCTTAGTAATG**TAA**CCTG
GAGCTTTTATACACTACATTTCTTTTTTATTATTATGAAGAATGGGATACCTCCAGGTTCCAGTAAAATTCTTCT
GACCGAAACCAATGTGGGTGTTAGAAAAATTACCATATAGCTTAATATGTTTATTAGTTCTCTTTGGAAAAAAAC
TACCACTGTGGTCTTAAAAGGGAACAAAATATACCATAGGCTAAAACTAAGGCTTTCACTCTAGAATGCAAAGCT
GTTTTGCAGCTGTTTTCCCTTAAAGATGTCCTGTTGCTTTAGTGATATTTAGACCCCTCTCAGTTAAGAAATGCT
TAGATTAAAAAAAAAAAAATTACGTAGGATTAATACAGAAATTTAATCATGTCTGATTAATTGCTCTATTAAAATA
AGGGGCATTTAAAGACCCAGCATAACCATTTGTATAATGAGAAATCTAGGGGAAAACCAATCAGTCCAACATGAG
ATTTTAGGAATAGAAATTTGCCGGCCATTTGGAAAGTGAAATGCCACTTAGTTCTCAATTGATGACAGTGTTTGA
ATCATCATAAAAAAAATACCTGCTTTTCATCTGGACAACCCAATTGAGCCACTTTATCTCCTTTTGGCAATCTGA
GTAGGCGGGGAACCTAGGCAGGGCTGGCTTTCTTAGCGTGTAACTTGTGTAGCAGCACAGGGCCCACACTTAGAA
GGACCCCACACTTGGTTCAAGGCTCTGCTATAGCGGAAATTCTTAATAATGTTTGAAGAAGGGCCCCATGATTTC
ATTTTGTGCTGAGCCCTCAAAATTATGTCTGTTTCGTGGTGGGAAATATCCTATGTTTTCTTGCTCAAACACCTT
TCTCTCTGAAAGCAGAAAAAGGCACTGATATAAAGGGAAGAGAAGGAGGCTCACCGGAGGGAAGAGAACATAGTG
AAGATTCCCGCCTTTGGGGAGGTCTGGACCACCCAGGGCCTCCACTGCCACCTTGGCTGGCAAGGGAGAAATGTG
TTGTGTTGTCTTAGCTTTAAAACAGTCACAGTTCTTGCTCTATCATAGATGAACAAATACTTTCTTGATCATTCT
GTAAGACCAGGAGGTTGGTAAGAGTGACTAACCAGCCTAACTTTAATACACATGTATAAAGATGTTCACAGAGAA
AGATGCTCTGTAGAGAATTTGCTACCGAAGTTGGCTCAAGAATTTGTTTTTAGTGTTATTTACCAAGATTAGGAC
GTCAGTGGCTTAAATTCTTTGAATTCTTTTCAAGGACTGCAAGATTATTTGATAAAGAGTAGCATGAATCTTGTG
CTCTAATATTACACAGTAAGTTCAAAGAAAGGATGTAAGTCAAAGACTTGTTACATAGAGGGAAAATGGACTGGG
ATAGAGGACAGACTGATAGTTTCTTTCTTTCATATCACATGTATAGAGAAATAATTATATCAGAAACTCACAAAC

FIGURE 275B

CTAGACATGGAAAAACAGATTACTGTCTATTGTCAGCATCATTTTCATCTGTAAGTCACTACTGGAATATATTTT
TCTTTTAATTTCCAGTGACTTTAGAATACACACAGTTTTTCCGACTTTTCAAAAATTTGATTAAATGGTTTTATA
GTATAATATTGGGACCCCATACCGTTAGCCCTTGTATGTATACCAACACTGCCAAAGTAAAACATTAGGTCAGGC
ATGGTGGCTCAGGCCTGTAATCCCAGCATTTTGGGAGGCTGAGGCAAGTGGATAACTTGAGGTCATGAGTTCGAA
ACCAGCCTGGCCAAAACAGTGAAACCCCGTCTCTACTAAAAATACAAAATTAGCCAGATGTGGTGGCGCACACCT
GTAATCCCAGCTACTCAGGAAGCTGAGGCAGGAAAATCGCTTGAACCTGGGAGGTGGAAGTTGCAGTGAGCCGAG
ATCGCACCACTGCACTCCAGCCTGGGTGACAAGAGCGAAACTCCATCTC

FIGURE 276

MSIHIVALGNEGDTFHQDNRPSGLIRTYLGRSPLVSGDESSLLLNAASTVARPVFTEYQASAFGNVKLVVHDCPV
WDIFDSDWYTSRNLIGGADIIVIKYNVNDKFSFHEVKDNYIPVIKRALNSVPVIIAAVGTRQNEELPCTCPLCTS
DRGSCVSTTEGIQLAKELGATYLELHSLDDFYIGKYFGGVLEYFMIQALNQKTSEKMKKRKMSNSFHGIRPPQLE
QPEKMPVLKAEASHYNSDLNNLLFCCQCVDVVFYNPDLKKVVEAHKIVLCAVSHVFMLLFNVKSPTDIQDSSIIR
TTQDLFAINRDTAFPGASHESSGNPPLRVIVKDALFCSCLSDILRFIYSGAFQWEELEEDIRKKLKDSGDVSNVI
EKVKCILKTPGKINCLRNCKTYQARKPLWFYNTSLKFFLNKPMLADVVFEIQGTTVPAHRAILVARCEVMAAMFN
GNYMEAKSVLIPVYGVSKETFLSFLEYLYTDSCCPAGIFQAMCLLICAEMYQVSRLQHICELFIITQLQSMPSRE
LASMNLDIVDLLKKAKFHHSDCLSTWLLHFIATNYLIFSQKPEFQDLSVEERSFVEKHRWPSNMYLKQLAEYRKY
IHSRKCRCLVM

FIGURE 277

GCGGCCGCCGTGGCCAGGCAACCTATGGGTACCACCGGGTTCTCGCGGGTCTTGCGAACGAACTTTTCCTTGAAA
CTCTCTGGATTCCTGTAAACAGTGGGGCTCAGCCCCTCAATGACTGGAGGCTTCGATGGTTCAAAGGGGACCTCC
GGAATCACAGGGCCGGGAGTCGCCATGTCCGGGCCACAGCAGCAGGAGAAAATCGGGACTCCGACCTCAGCCTCC
CGGTGAAGGTCATGAAAGGGGCGGGGAAACGAATAAATTGAGCCTTGTACGCAGGCGCAAATGCTCGTTGCATCC
TGGGAGTCGTAGTGCTCAGCACGGTAGTGCTACAAAAGGACTACATTTCCCCAAATGCCCGCAAAGCCTTGTGCA
CGCCTTCCGGAAGGAGTTTGTTACACGAGGTCTGAGAGACAGAGGCAGCGTGTTTGAGCTGCTGGTGCGGTGGTC
AGCGCG**ATG**CCCAAGGCCAAGGGCAAAACCCGGAGGCAGAAGTTTGGTTACAGTGTCAACCGAAAGCGTCTGAAC
CGGAATGCTCGACGGAAGGCAGCGCGCGGAATCGAATGCTCCCACATCCGACATGCCTGGGACCACGCTAAATCG
GTACGGCAGAACCTGGCCGAGATGGGGTTGGCTGTGGACCCCAACAGGGCGGTGCCCCTCCGTAAGAGAAAGGTG
AAGGCCATGGAGGTGGACATAGAGGAGAGGCCTAAAGAGCTTGTACGGAAGCCCTATGTGCTGAATGACCTGGAG
GCAGAAGCCAGCCTTCCAGAAAAGAAAGGAAATACTCTGTCTCGGGACCTCATTGACTATGTACGCTACATGGTA
GAGAACCACGGGGAGGACTATAAGGCCATGGCCCGTGATGAGAAGAATTACTATCAAGATACCCCAAAACAGATT
CGGAGTAAGATCAACGTCTATAAACGCTTTTACCCAGCAGAGTGGCAAGACTTCCTCGATTCTTTGCAGAAGAGG
AAGATGGAGGTGGAG**TAA**CTGGTTTACATCACAGCTGCCCCAGGCTGAGGCGTCCCCCGGACCAGTGAAGCTGGA
GCCAGGGTGTAAGGCAAGGAGGTGCTGTGTGGCTCCAGAGGGGCTGGCCAGGTCCCATGGAATCAGAAGGTTACA
CACACACGTGCACACTCCCCGCTCTGGGGAAGGAACTGTTCTCAGAGGCTCCAATTTATATTCATCTGGGGGTTC
ACGGAAAAGCCAGAACCTGCTGTTTTCAGGGTGGGTGATGTAAATATAGTGTGTACATAATAAAGCAAATATATT
TTAAA

FIGURE 278

MPKAKGKTRRQKFGYSVNRKRLNRNARRKAARGIECSHIRHAWDHAKSVRQNLAEMGLAVDPNRAVPLRKRKVKA
MEVDIEERPKELVRKPYVLNDLEAEASLPEKKGNTLSRDLIDYVRYMVENHGEDYKAMARDEKNYYQDTPKQIRS
KINVYKRFYPAEWQDFLDSLQKRKMEVE

FIGURE 279A

CGTCCACCGTGGAGTCTCTCCTTGCTTTGGGTCCACTGAGCCCCACACATTGTTGAGTGTCTGATTGTCTCCTTG
CCCTTACAGGACAGGAAAGCGAAATCTCTGTTCCTTTGTAGGGACCTTTCTTTTGTAGGTGAAAGGGACAGAAAT
ATGATTCTGGCCTCCTTGATGGTGAATACAGGAACACTTTCAGATAAATTACAATAGAGAGGAGTCAGCTTATTT
AAACAAACTGAGGTTAAGCCAGAGATTGCAGTTAACAGTGAAAAAATTTAAAGCAAGTACCTGGATGGATGCAAA
GCAGTGCCCAGGAGACCCAACTTACGTGACAGAGATGATCATTGTCACTCATTCATTATGTTTGAGCACCAGCC
ATGTGCCAGGTCCAGAACTAGAAGAAACTTGGGTGTAGGTGAGATCATAGGAACAGTCCCTGCCCCAGCTGAACA
TCAGGAAGCCAGACTGGGAGCACATGCCGTGGCTGACTAGGACTCCAGCAGGGACCTGGGGTTCCATCAGATCAG
TGTAAAGCGATGGTTTCCCAAATGAGACCTCTCCAGAGATGGTTCATTCCACCCCGCAATGGCCACCAGAAACAT
TGTGCTGACCAGAGGGCTTCACTGCCCCAAACCCCAAAATCACACTCCAGGATGAGAAACCTAAAAGTCTATCTT
GATGAGGCTTCATAGCTGGAAACCACCCCTCATGGATCCACAGGCTGCATTGATGAAAGGAGACTCCAGGAAGT
CGAGCCATTCCAGGCAGACATGTAGCAAAAGCCCGAGCTGGGGTCCGCCCTCATGCAATAAATAACACCTGTGCA
CATAAGAGAGGTGACAGGCAGGGCATCCCTGGGGACCTGGGCCTGTGGCACGTGAAGAAACACCCAAGAGAGCAC
GAAGTCCCAATGCCATGACCAGATATTTCGGTGCCAGGCATGCTTCTGGGTCCCAGCAAAAGACACACAAATCCG
TGTCCTTGGGGACCCACAGTCTAGTGACCTAGGGCTGGCCGGGTCGCACGCTTCTTTTCAAGGGCTCGAAAGCCT
CTGCATGGATGCAACTTTGGGGGAAAAGTAACCCTAACCCTCTGCTTCTCTCATCCTCCCCTCTTCTGTGTATAT
GTCTGTCTCTTTCTCTCTGTGTGTGCCCTTCCCCACTCCCATCCCCATTCCTTTTTTTATTTATTATATTTTGGT
GGTGTGTGGCTCGGTTTCTGTTGGTCCCCTCGTGTGGCCCCTCCCCTGCTGCAGAACTCGTCCAGCTCGGCCTCC
TCCGAAGCCTCGGAAACCTGCCAGTCAGTGAGCGAGTGCAGCTCCCCCACCTCTGTCAGCTCGGGCTCCACCATG
GGTGCCTGGGTGTCCACAGAGAAGGTGACCGCCCGGGTGGCAGCCACAGCGGCCCCACTCTCCCTGGTCCCCCTG
CCTGCTGCTCAGACAGCCCTCACAGCCGCGGCAACCTGGAAGCTCAGAATCGACACCAAGAGTGGGGCTCCTCTT
GGGGACAGAGGGTGGGACAAGGCTGAGAGCATTTTCTAGAATGAGTGCCTGGCTGCTGGACAATGACCACATGGT
TGTCTCAAGGGAGAGGAAGGGGTATGGGGAATTTGGAGGTGTGAAGGCTTTCTCCCAGACCAGGTGTTGCGTGCC
TGTCCATCCTCCTCCCTCCCTTCCCGAGCCACCCACCAGACCGTTGGATGAGCCATGTCACTGTGTCAGAGGCTG
TGTGCTTTTCCGCTTTTTAGTTTGCACCCCCACCCCCCTGCCCTTGATTGAGAATGTGCTCCTGAGCAATGCGAC
GATTTTGGAAACCTAGAATGAACAGATTCATTTGAAGATGCTTTGGAATTTTTAAATTTGCATAATGAAATGAGC
AAATCACTATCACCATTAAATGAGGCTTCATTAGTTACATTATCAAAAACCATTGACAAGGCCACAAATTGAGGG
CACTGATCAATTTCCAAACTTCTAAAACGTAGGTCAAACATAGATGCTTATTTGCTGTCAAACTCATGTGCATTC
TTTGCACCCCGGCTCTTTTCTCTTGCATCACAGATCATCCGTGAGCAGCAGAGCCCCAATGTTTGTTTATTTAT
AAATATTCAGGTTTCCCCTCCCTTGAATGTCAATGCCATTTTGTATCTCCGCACTCATCCTGTTATATTAATTTT
TTTTCCTTTCCCCCCCCTTTTTTTGTTTGTTTCCAGTTGTCTAACGGGTTTTCTCACTATAGTTTATCAAGTGAG
TCCCACGTGGGGCCCACGGGTGCAGGCCTTTTCCCTCATTGCCTGCCTGCCTCCCGCCTGCTCCCTCGGGTCACC
TCTGTCCACCTTCCAGACTACGCTCATTATTACACCATTGGGCCCGGC**ATG**TTCCCGTCATCTCAGATCCCTAGC
TGGAAGGACTGGGCTAAGCCTGGGCCCTATGACCAGCCTCTGGTGAACACCCTGCAGCGCCGCAAAGAGAAGCGA
GAACCGGACCCCAACGGGGGAGGACCCACTACCGCCAGCGGCCCACCTGCAGCAGCTGAGGAGGCTCAGAGACCA
CGGAGCATGACTGTATCGGCTGCCACCAGGCCTGGTGAGGAGATGGAGGCTTGTGAGGAGCTGGCCCTGGCCCTG
TCTCGGGGCCTGCAGCTGGACACCCAGAGGAGCAGCCGGGACTCGCTTCAGTGCTCCAGCGGCTACAGCACCCAG
ACAACCACCCCCTGCTGCTCTGAGGACACCATCCCTTCCCAAGTTTCAGATTATGATTATTTCTCTGTAAGTGGT
GACCAGGAGGCAGATCAGCAGGAGTTCGACAAGTCCTCCACCATTCCAAGAAACAGCGACATCAGCCAGTCCTAC
CGACGGATGTTCCAAGCCAAGCGTCCAGCCTCAACTGCTGGCCTCCCCACCACCCTGGGACCTGCTATGGTCACT
CCAGGGGTTGCAACTATCCGACGGACCCCTTCCACCAAGCCTTCTGTCCGCCGGGGAACCATTGGAGCTGGTCCC
ATCCCCATCAAGACACCCGTGATCCCTGTCAAGACCCCAACCGTCCCAGACCTCCCAGGGGTGTTGCCAGCCCCT
CCAGATGGGCCAGAAGAGCGGGGGGAGCACAGCCCTGAGTCGCCATCTGTGGGTGAGGGCCCCCAAGGTGTCACC
AGCATGCCCTCCTCAATGTGGAGCGGCCAAGCTTCCGTTAACCCTCCACTTCCAGGCCCGAAGCCCAGTATCCCT
GAGGAGCACAGACAGGCAATTCCAGAAAGTGAAGCTGAAGACCAGGAACGGGAACCCCCAAGTGCCACTGTCTCC
CCAGGCCAGATTCCAGAGAGTGACCCTGCAGACCTGAGCCCAAGGGATACTCCACAAGGAGAAGACATGCTGAAC
GCCATCCGAAGGGGCGTGAAACTGAAGAAGACCACGACAAACGATCGCTCAGCCCCTCGCTTTTCT**TAG**GTTCAC
AAGAAATGCGCCGGTGGGGAATGAACTGTTTCATTAATAAAACCTAATTTGTCTTGATCCATTCCACTCTATAAT
AAAACAAAAGATTTTGTAGGCAACTCGGAATATAGCTCTTTTGAAAGTACTCGACACCTTTAGATAAGAATTAAA

FIGURE 279B

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ACCAACCTATGTAACTGACATAATCTTGATCTTTTAATTTGTAAATATTGACAATTTTCTTTCTGCACATTTTAA
TCTTAGTTTCCCTTTTGATTTTTCTGAAGGTGCCAAATTCCATTTAACTTTTTTACAAGTCTTTGTAAAATTTTA
AATGCATAAAGGGGGTTGGGGCAGGGGAACCACGAAGTAGTTAATTTTAGAAAAGGATTTACTATACTTCACTCT
TCTTTTTTTTTCCCCACAAGCTTTTGTAGATGCATTGTAGTAGTCTAGCTTAGAAGCAAATGCAAGTTATTTTAA
TGTACAAACTAAATGGGTAAGAGGTAAAATCTTCATTTAAATATACTATGTTCTGGATGAAAAGAGCAGGAGTAA
CAATTGATGAGCAATATTCAGAGTGAAGTAAATCTGGAAATGGTAGACTGTGTTGGGATTGGGGGGAGGGCCATG
GGAGGGGTACATCGTCAACATAGCCGATCCTGTTACATTTAAGAGTAGCCTCGTAGGTTGAATTTCTTCTGGTAG
CTTCATGGTAAATGCATCCGAATAAGCCATACTGGATTGCAGTGTTTGTTTCTGTAGGGTGTTTAAGGACTTGAC
TTCCTTTCTCCCATGATTCCTCTGGACTGCACACAGCACCCACAACCAGCCCCATGCATGCTGCTGCCTCTGGGC
AGTCGTAGAATCTCCCACTTCAGTTTCTCGTTGATTGTACTCACCTTTATGGAATCCAAATACATCCAAAAGGGT
AAGGCAGTTTTAAAAATGTGAAAACATTTAAAAATGATAATAGCAGGGAATTCTTAGATTATAGTAAATGCCTTT
TACTTAACTGTGCCCAGCAGGCTGGGTGCGTTAAAAAGCCCAAGTATTTTGAAAAAACTCGAACAGATTTGACAA
GGGTAGCCAGCTTGGAGTCTAGCAACTTGCCAATGTGTTTACCAATCTGGGGGCTTGTTTTTCTTTTCTTCTTTC
AAATAAATGGCAGTTAACTGGCTTTACAGTAAACATTGAAGAGAGGAGGATTTGTTTATTGTCACTGGGAATCTG
ACCACTATACTGTCCTTTTTTTGTATTCTGGGTAATGTTTTTTGGAAAAGATTTGTCTTTTCTAAGTGGAAGTTA
AATTTGTTATACTGCCCATCCCCTAAAGCCAACAGAGATTTGTAGATTTAAAGGGATCACATTTGAAGACAATAG
TGTTTAAGAAAGCAAGCAAGTCCCTTAGCAGTCAGGTCATAACAGGGCACATTTCTGACCGAACCCTCTCAAGGC
AGAGGAGGAGTTTGGTGGGTTTCATACACCCTGCAGATTCCTGTTGGCTCTAACCCTCAATTACCTAATCTTATG
CTTTAACACATAACTGCATTGGATGTGAGAGTAACGTACCGTATGGTCATTGTTCTATATATTAACATTGAACAC
TGCTGCGATTGCTCAAGGACATTTTATGTTACGGCTTTAAAGCAAAGGCATGATTATTAGAAACTATTTAAGCTT
TTTTCTTTGAAAAACAAGCTTCTTTTACAGAATATAAACAACAGTAGTGCCTGTGGTTTAGCCCACCAATCTTGA
TGACTAAAAGTAGCTGATGCATTGTGCATATGATGCTTGAGATGGTTTTTGCAAAAGCAGAAATCGCTGCAAGGT
AATCACAATAGATAAAAGTGGTATTTTAAACCTTTGAAATAAATGGATGTAACTGTACCTTGGTACAGCTTTTCA
CTTGTTTAGTTTTTAAACGTTAGTATAATCTGAATAAATAAATGTTGCCAAATTCAATGTAGAAGAATGTGAC
AACACACCTTGGGTAGTTCTGCTTGTGTTTTTGCATATTGTAAAAGCAGTGTCACAGCTAAAAAGAAAGAAATCG
TTTCTAACAGTAAATTATTGTGCTTTAGTTGCTAGTTTGTACTGAGAGTTGACCTCTCCCTGTGCAGTTTTTTGT
TCTAAACTTGTATAAATAACAATTGTGTAATGTGTCTCCCTCCTACATTGTAACAATTGCTTCAGCCTACGTTAT
AAATAAAGAACCACTAGATT
```

FIGURE 280

MFPSSQIPSWKDWAKPGPYDQPLVNTLQRRKEKREPDPNGGGPTTASGPPAAAEEAQRPRSMTVSAATRPGEEME
ACEELALALSRGLQLDTQRSSRDSLQCSSGYSTQTTTPCCSEDTIPSQVSDYDYFSVSGDQEADQQEFDKSSTIP
RNSDISQSYRRMFQAKRPASTAGLPTTLGPAMVTPGVATIRRTPSTKPSVRRGTIGAGPIPIKTPVIPVKTPTVP
DLPGVLPAPPDGPEERGEHSPESPSVGEGPQGVTSMPSSMWSGQASVNPPLPGPKPSIPEEHRQAIPESEAEDQE
REPPSATVSPGQIPESDPADLSPRDTPQGEDMLNAIRRGVKLKKTTTNDRSAPRFS

FIGURE 281

CGTCCTTCCTCAGCCGCGGGTGATCGTAGCTCGGAA**ATG**GCGGGATTTGGTGCTATGGAGAAATTTTTGGTAGAA
TATAAGAGTGCAGTGGAGAAGAAACTGGCAGAGTACAAATGTAACACCAACACAGCAATTGAACTAAAATTAGTT
CGTTTTCCTGAAGATCTTGAAAATGACATTAGAACTTTCTTTCCTGAGTATACCCATCAACTCTTTGGGGATGAT
GAAACTGCTTTTGGTTACAAGGGTCTAAAGATCCTGTTATACTATATTGCTGGTAGCCTGTCAACAATGTTCCGT
GTTGAATATGCATCTAAAGTTGATGAGAACTTTGACTGTGTAGAGGCAGATGATGTTGAGGGCAAAATTAGACAA
ATCATTCCACCTGGATTTTGCACAAACACGAATGATTTCCTTTCTTTACTGGAAAAGGAAGTTGATTTCAAGCCA
TTCGGAACCTTACTTCATACCTACTCAGTTCTCAGTCCAACAGGAGGAGAAAACTTTACCTTTCAGATATATAAG
GCTGACATGACATGTAGAGGCTTTCGAGAATATCATGAAAGGCTTCAGACCTTTTTGATGTGGTTTATTGAAACT
GCTAGCTTTATTGACGTGGATGATGAAAGATGGCACTACTTTCTAGTATTTGAGAAGTATAATAAGGATGGAGCT
ACGCTCTTTGCGACCGTAGGCTACATGACAGTCTATAATTACTATGTGTACCCAGACAAAACCCGGCCACGTGTA
AGTCAGATGCTGATTTTGACTCCATTTCAAGGTCAAGGCCATGGTGCTCAACTTCTTGAAACAGTTCATAGATAC
TACACTGAATTTCCTACAGTTCTTGATATTACAGCGGAAGATCCATCCAAAAGCTATGTGAAATTACGAGACTTT
GTGCTTGTGAAGCTTTGTCAAGATTTGCCCTGTTTTTCCCGGGAAAAATTAATGCAAGGATTCAATGAAGATATG
GCGATAGAGGCACAACAGAAGTTCAAAATAAATAAGCAACACGCTAGAAGGGTTTATGAAATTCTTCGACTACTG
GTAACTGACATGAGTGATGCCGAACAATACAGAAGCTACAGACTGGATATTAAAAGAAGACTAATTAGCCCATAT
AAGAAAAAGCAGAGAGATCTTGCTAAGATGAGAAAATGTCTCAGACCAGAAGAACTGACAAACCAGATGAACCAA
ATAGAAATAAGCATGCAACATGAACAGCTGGAAGAGAGTTTTCAGGAACTAGTGGAAGATTACCGGCGTGTTATT
GAACGACTTGCTCAAGAG**TAA**AGATTATACTGCTCTGTACAGGAAGCTTGCAAATTTTCTGTACAATGTGCTGTG
AAAAATCTGATGACTTTAATTTTAAAATCTTGTGACATTTTGCTTATACTAAAAGTTATCTATCTTTAGTTGAAT
ATTTTCTTTTGGAGAGATTGTATATTTTAAAATACTGTTTAGAGTTTATGAGCATATATTGCATTTAAAGAAAGA
TAAAGCTTCTGAAATACTACTGCAATTGCTTCCCTTCTTAAACAGTATAATAAATGCTTAGTTGTGAT

FIGURE 282

MAGFGAMEKFLVEYKSAVEKKLAEYKCNTNTAIELKLVRFPEDLENDIRTFFPEYTHQLFGDDETAFGYKGLKIL
LYYIAGSLSTMFRVEYASKVDENFDCVEADDVEGKIRQIIPPGFCTNTNDFLSLLEKEVDFKPFGTLLHTYSVLS
PTGGENFTFQIYKADMTCRGFREYHERLQTFLMWFIETASFIDVDDERWHYFLVFEKYNKDGATLFATVGYMTVY
NYYVYPDKTRPRVSQMLILTPFQGQGHGAQLLETVHRYYTEFPTVLDITAEDPSKSYVKLRDFVLVKLCQDLPCF
SREKLMQGFNEDMAIEAQQKFKINKQHARRVYEILRLLVTDMSDAEQYRSYRLDIKRRLISPYKKKQRDLAKMRK
CLRPEELTNQMNQIEISMQHEQLEESFQELVEDYRRVIERLAQE

FIGURE 283A

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GAATTCGGCACGAGGCCATTGAATCCCAGTCCTAACAGAAGTACTGCGAATCTTGTGGCCTCATTCTGAACAAAA
GGGATTAGAGAAGAAAAATCTCTTGATATAAGGCTTGAAAGCAAGGGCAGGCAATCTTGGTTGTGAATATTTTCT
GATTTTTCCAGAAATCAAGCAGAAGATTGAGCTGCTGATGTCAGTTAACTCTGAGAAGTCGTCCTCTTCAGAAAG
GCCGGAGCCTCAACAGAAAGCTCCTTTAGTTCCTCCTCCTCCACCGCCACCACCACCACCGCCACCTTTGCC
AGACCCCACACCCCCGGAGCCAGAGGAGGAGATCCTGGGATCAGATGATGAGGAGCAAGAGGACCCTGCGGACTA
CTGCAAAGGTGGATATCATCCAGTGAAAATTGGAGACCTCTTCAATGGCCGGTATCATGTTATTAGAAAGCTTGG
ATGGGGGCACTTCTCTACTGTCTGGCTGTGCTGGGATATGCAGGGGAAAAGATTTGTTGCAATGAAAGTTGTAAA
AAGTGCCCAGCATTATACGGAGACAGCCTTGGATGAAATAAAATTGCTCAAATGTGTTCGAGAAAGTGATCCCAG
TGACCCAAACAAAGACATGGTGGTCCAGCTCATTGACGACTTCAAGATTTCAGGCATGAATGGGATACATGTCTG
CATGGTCTTCGAAGTACTTGGCCACCATCTCCTCAAGTGGATCATCAAATCCAACTATCAAGGCCTCCCAGTACG
TTGTGTGAAGAGTATCATTCGACAGGTCCTTCAAGGGTTAGATTACTTACACAGTAAGTGCAAGATCATTCATAC
TGACATAAAGCCGGAAAATATCTTGATGTGTGTGGATGATGCATATGTGAGAAGAATGGCAGCTGAGCCTGAGTG
GCAGAAAGCAGGTGCTCCTCCTCCTTCAGGGTCTGCAGTGAGTACGGCTCCACAGCAGAAACCTATAGGAAAAAT
ATCTAAAAACAAAAAGAAAAAACTGAAAAAGAAACAGAAGAGGCAGGCTGAGTTATTGGAGAAGCGCCTGCAGGA
GATAGAAGAATTGGAGCGAGAAGCTGAAAGGAAAATAATAGAAGAAACATCACCTCAGCTGCACCTTCCAATGA
CCAGGATGGCGAATACTGCCCAGAGGTGAAACTAAAAACAACAGGATTAGAGGAGGCGGCTGAGGCAGAGACTGC
AAAGGACAATGGTGAAGCTGAGGACCAGGAAGAGAAAGAAGATGCTGAGAAAGAAAACATTGAAAAGATGAAGA
TGATGTAGATCAGGAACTTGCGAACATAGACCCTACGTGGATAGAATCACCTAAAACCAATGGCCATATTGAGAA
TGGCCCATTCTCACTGGAGCAGCAACTGGACGATGAAGATGATGATGAAGAAGACTGCCCAAATCCTGAGGAATA
TAATCTTGATGAGCCAAATGCAGAAAGTGATTACACATATAGCAGCTCCTATGAACAATTCAATGGTGAATTGCC
AAATGGACGACATAAAATTCCCGAGTCACAGTTCCCAGAGTTTTCCACCTCGTTGTTCTCTGGATCCTTAGAACC
TGTGGCCTGCGGCTCTGTGCTTTCTGAGGGATCACCACTTACTGAGCAAGAGGAGAGCAGTCCATCCCATGACAG
AAGCAGAACGGTTTCAGCCTCCAGTACTGGGGATTTGCCAAAAGCAAAAACCCGGGCAGCTGACTTGTTGGTGAA
TCCCCTGGATCCGCGGAATCGAGATAAAATTAGAGTAAAAATTGCTGACCTGGGAAATGCTTGTTGGGTGCATAA
ACACTTCACGGAAGACATCCAGACGCGTCAGTACCGCTCCATAGAGGTTTTAATAGGAGCGGGGTACAGCACCCC
TGCGGACATCTGGAGCACGGCGTGTATGGCATTTGAGCTGGCAACGGGAGATTATTTGTTGAACCACATTCTGG
GGAAGACTATTCCAGAGACGAAGACCACATAGCCCACATCATAGAGCTGCTAGGCAGTATTCCAAGGCACTTTGC
TCTATCTGGAAAATATTCTCGGGAATTCTTCAATCGCAGAGGAGAACTGCGACACATCACCAAGCTGAAGCCCTG
GAGCCTCTTTGATGTACTTGTGGAAAAGTATGGCTGGCCCCATGAAGATGCTGCACAGTTTACAGATTTCCTGAT
CCCGATGTTAGAAATGGTTCCAGAAAAACGAGCCTCAGCTGGCGAATGTCGGCATCCTTGGTTGAATTCTTAGCA
AATTCTACCAATATTGCATTCTGAGCTAGCAAATGTTCCCAGTACATTGGACCTAAACGGTGACTCTCATTCTTT
AACAGGATTACAAGTGAGCTGGCTTCATCCTCAGACCTTTATTTTGCTTTGAGGTACTGTTGTTTGACATTTTGC
TTTTTGTGCACTGTGATCCTGGGGAAGGGTAGTCTTTTGTCTTCAGCTAAGTAGTTTACTGACCATTTTCTTCTG
GAAACAATAACATGTCTCTAAGCATTGTTTCTTGTGTTGTGTGACATTCAAATGTCATTTTTTTGAATGAAAAAT
ACTTTCCCCTTTGTGTTTTGGCAGGTTTTGTAACTATTTATGAAGAAATATTTTAGCTGAGTACTATATAATTTA
CAATCTTAAGAAATTATCAAGTTGGAACCAAGAAATAGCAAGGAAATGTACAATTTTATCTTCTGGCAAAGGGAC
ATCATTCCTGTATTATAGTGTATGTAAATGCACCCTGTAAATGTTACTTTCCATTAAATATGGGAGGGGGACTCA
AATTTCAGAAAGCTACCAAGTCTTGAGTGCTTTGTAGCCTATGTTGCATGTAGCGGACTTTAACTGCTCCAAGG
AGTTGTGCAAACTTTTCATTCCATAACAGTCTTTTCACATTGGATTTAAACAAAGTGGCTCTGGGTTATAAGAT
GTCATTCTCTATATGGCACTTTAAAGGAAGAAAAGATATGTTTCTCATTCTAAAATATGCATTATAATTTAGCAG
TCCCATTTGTGATTTTGCATATTTTTAAAAGTACTTTTAAAGAAGAGCAATTTCCCTTTAAAAATGTGATGGCTC
AGTACCATGTCATGTTGCCTCCTCTGGGCGCTGTAAGTTAAGCTCTACATAGATTAAATTGGAGAAACGTGTTAA
TTGTGTGGAATGAAAAAATACATATATTTTTGGAAAAGCATGATCATGCTTGTCTAGAACACAAGGTATGGTATA
TACAATTTGCAGTGCAGTGGGCAGAATACTTCTCACAGCTCAAAGATAACAGTGATCACATTCATTCCATAGGTA
GCTTTACGTGTGGCTACAACAAATTTTACTAGCTTTTTCATTGTCTTTCCATGAAACGAAGTTGAGAAAATGATT
TTCCCTTTGCAGGTTGCACACAGTTTTGTTTATGCATTTCCTTAAAATTAATTGTAGACTCCAGGATACAAACCA
TAGTAGGCAATACAATTTAGAATGTAATATATAGAGGTATATTAGCCTCTTTAGAAGTCAGTGGATTGAATGTCT
TTTTATTTTAAATTTTACATTCATTAAGGTGCCTCGTTTTTGACTTTGTCCATTAACATTTATCCATATGCCTTT
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FIGURE 283B

GCAATAACTAGATTGTGAAAAGCTAACAAGTGTTGTAACAATAATCCATTGTTTGAGGTGCTTGCAGTTGTCTTA
AAAATTAAAGTGTTTTGGTTTTTTTTTTTCCAGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAATTCCTGC

FIGURE 284

MSVNSEKSSSSERPEPQQKAPLVPPPPPPPPPPPPPPLPDPTPPEPEEEILGSDDEEQEDPADYCKGGYHPVKIGD
LFNGRYHVIRKLGWGHFSTVWLCWDMQGKRFVAMKVVKSAQHYTETALDEIKLLKCVRESDPSDPNKDMVVQLID
DFKISGMNGIHVCMVFEVLGHHLLKWIIKSNYQGLPVRCVKSIIRQVLQGLDYLHSKCKIIHTDIKPENILMCVD
DAYVRRMAAEPEWQKAGAPPPSGSAVSTAPQQKPIGKISKNKKKKLKKKQKRQAELLEKRLQEIEELEREAERKI
IEENITSAAPSNDQDGEYCPEVKLKTTGLEEAAEAETAKDNGEAEDQEEKEDAEKENIEKDEDDVDQELANIDPT
WIESPKTNGHIENGPFSLEQQLDDEDDDEEDCPNPEEYNLDEPNAESDYTYSSSYEQFNGELPNGRHKIPESQFP
EFSTSLFSGSLEPVACGSVLSEGSPLTEQEESSPSHDRSRTVSASSTGDLPKAKTRAADLLVNPLDPRNRDKIRV
KIADLGNACWVHKHFTEDIQTRQYRSIEVLIGAGYSTPADIWSTACMAFELATGDYLFEPHSGEDYSRDEDHIAH
IIELLGSIPRHFALSGKYSREFFNRRGELRHITKLKPWSLFDVLVEKYGWPHEDAAQFTDFLIPMLEMVPEKRAS
AGECRHPWLNS

FIGURE 285

CCGGTGCGCCCGGCGGAGCGCGCGTGCGTGGCCAGCGCGCTCCCCGCTTCTGCTTGGCTTTCCGGCTTAATTTTC
CTCGGCGGGATTAAAGTTGGAAATTGACCGGAGAATTGAGTTGCCGGGGAACAGAGCCCCGGCCGCCGCCAGAGC
G**ATG**TTCCCGCAGAGCCGGCACCCGACGCCGCACCAGGCTGCAGGCCAGCCCTTCAAGTTCACTATCCCGGAGTC
CCTGGACCGGATTAAAGAGGAATTCCAGTTCCTGCAGGCGCAGTATCACAGCCTTAAATTGGAATGTGAGAAACT
GGCAAGTGAAAAGACAGAAATGCAGAGGCACTATGTGATGTATTATGAAATGTCATATGGATTAAACATTGAAAT
GCACAAACAGACTGAAATCGCCAAGAGATTGAATACGATTTGTGCACAAGTCATCCCATTTCTGTCTCAGGAACA
TCAACAACAGGTGGCCCAGGCTGTTGAACGTGCCAAACAGGTGACCATGGCAGAGTTGAATGCCATCATCGGGCA
GCAGCAGTTGCAAGCTCAGCATCTTTCTCATGGCCACGGACCCCCAGTTCCCCTTACGCCTCACCCTTCGGGACT
TCAGCCTCCTGGAATCCCGCCCCTCGGGGGCAGTGCCGGCCTTCTTGCGCTGTCCAGTGCTCTGAGTGGGCAGTC
TCACTTGGCAATAAAAGATGACAAGAAGCACCACGATGCAGAGCACCACAGAGACAGAGAGCCGGGCACAAGTAA
TTCCCTCCTGGTCCCAGACAGTCTAAGAGGCACAGATAAACGCAGAAATGGACCTGAATTTTCCAATGACATCAA
GAAAAGGAAGGTGGATGATAAGGACTCCAGCCACTATGACAGTGATGGTGACAAAAGCGATGACAACTTAGTTGT
GGATGTGTCTAATGAGGACCCTTCTTCTCCGCGAGCAAGCCCTGCCCACTCGCCCCGGGAAAATGGAATCGACAA
AAATCGCCTGCTAAAGAAGGATGCTTCTAGCAGTCCAGCTTCCACGGCCTCCTCGGCAAGTTCCACTTCTTTGAA
ATCCAAAGAAATGAGCTTGCATGAAAAAGCCAGCACGCCTGTTCTGAAATCCAGCACACCAACGCCTCGGAGCGA
CATGCCAACGCCGGGCACCAGCGCCACTCCAGGCCTCCGTCCAGGTCTCGGCAAGCCTCCAGCCATAGACCCCCT
CGTTAACCAAGCGGCAGCTGGCTTGAGGACACCCCTGGCAGTGCCCGGCCCATATCCTGCTCCTTTTGGGATGGT
CCCCCACGCTGGCATGAACGGCGAGCTGACCAGCCCAGGCGCTGCCTACGCCAGTTTACACAACATGTCGCCCCA
GATGAGCGCCGCAGCCGCCGCGGCCGCCGTGGTGGCCTACGGGCGCTCCCCCATGGTGGGGTTTGATCCTCCCCC
TCACATGAGAGTACCTACCATTCCTCCAAACCTGGCAGGAATCCCTGGGGGGAAACCTGCATACTCCTTCCACGT
TACTGCAGACGGTCAGATGCAGCCTGTCCCTTTTCCCCCCGACGCCCTCATCGGACCCGGAATCCCCGGCATGC
TCGCCAGATCAACACCCTCAACCACGGGGAGGTGGTGTGCGCTGTGACCATCAGCAACCCCACGAGACACGTGTA
CACAGGCGGGAAGGGCTGCGTCAAGGTCTGGGACATCAGCCACCCTGGCAATAAGAGCCCTGTCTCCCAGCTCGA
CTGTCTGAACAGAGACAATTATATCCGTTCCTGTAAATTGCTACCCGATGGCTGCACTCTCATAGTGGGAGGGGA
AGCCAGTACTTTGTCCATTTGGGACCTGGCGGCTCCAACCCCGCGCATCAAGGCGGAGCTGACGTCCTCGGCCCC
CGCCTGCTACGCCCTGGCCATCAGCCCCGATTCCAAGGTCTGCTTCTCATGCTGCAGCGACGGCAACATCGCTGT
GTGGGATCTGCACAACCAGACACTAGTGAGGCAATTCCAGGGCCACACAGACGGAGCCAGCTGTATTGACATTTC
TAATGATGGCACCAAGCTCTGGACGGGTGGTTTGGACAACACAGTCAGGTCCTGGGACCTGCGCGAGGGGCGGCA
GCTGCAGCAGCACGACTTCACCTCCCAGATCTTCTCCCTGGGGTACTGCCCCACCGGGGAGTGGCTGGCAGTGGG
CATGGAGAGCAGCAATGTGGAGGTGCTGCACGTGAACAAGCCTGACAAGTACCAGCTGCACCTGCATGAGAGCTG
CGTGCTGTCCCTGAAATTTGCTTACTGTGGTAAATGGTTTGTGAGTACTGGAAAAGATAACCTCCTCAATGCTTG
GCGGACCCCCTATGGAGCCAGCATATTCCAGTCCAAAGAGTCCTCGTCAGTGCTTAGCTGTGACATCTCTGTGGA
TGATAAGTACATAGTCACTGGCTCGGGGGACAAGAAGGCTACAGTCTATGAAGTCATCTAC**TGA**AAACATTATGT
GGTTTAACGTTTATAGTTGAATTGGGCCAAAATGTTTCGAATTTATAGAAATAGAAAAGTTGTAACTTTAAAAGA
GAAAAAAAATTACAAACACCTGTTTCCAAACCTTGACAGAAACTACTTTGAGTCTACAAAGAGGAGGCGACAAG
TCCATCAGCAGAAAGTCACCTGTCTACATAGACCAAATGGAGCACCAAGGCCAAGCGGACAGAGGGGCCATGGGT
TGTAGGATTGAGGAACGGAATCTGCCGACTCACATGACAGCCCATTCTTTCTTTCTGGGTGATCTGGGGATCACG
CCTTGCCCAAGTGTGAGATTACCTTTCTGTTCCTTGCAGTTCACCTCACTTTCCGTCCTTTGTAGAGCAGTGGTG
TCTCCAATGAACTTGTTTCCTGGTTTTGCATCTTGTGAAATGTTTTTTTGTATTTTTGTTGAAGGTTAAACATTT
GTATAAATTGTAAATATATTTGGTTTATTACAGTAAAGGCTTTAGTACCAATAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAA

FIGURE 286

MFPQSRHPTPHQAAGQPFKFTIPESLDRIKEEFQFLQAQYHSLKLECEKLASEKTEMQRHYVMYYEMSYGLNIEM
HKQTEIAKRLNTICAQVIPFLSQEHQQQVAQAVERAKQVTMAELNAIIGQQQLQAQHLSHGHGPPVPLTPHPSGL
QPPGIPPLGGSAGLLALSSALSGQSHLAIKDDKKHHDAEHHRDREPGTSNSLLVPDSLRGTDKRRNGPEFSNDIK
KRKVDDKDSSHYDSDGDKSDDNLVVDVSNEDPSSPRASPAHSPRENGIDKNRLLKKDASSSPASTASSASSTSLK
SKEMSLHEKASTPVLKSSTPTPRSDMPTPGTSATPGLRPGLGKPPAIDPLVNQAAAGLRTPLAVPGPYPAPFGMV
PHAGMNGELTSPGAAYASLHNMSPQMSAAAAAAAVVAYGRSPMVGFDPPPHMRVPTIPPNLAGIPGGKPAYSFHV
TADGQMQPVPFPPDALIGPGIPRHARQINTLNHGEVVCAVTISNPTRHVYTGGKGCVKVWDISHPGNKSPVSQLD
CLNRDNYIRSCKLLPDGCTLIVGGEASTLSIWDLAAPTPRIKAELTSSAPACYALAISPDSKVCFSCCSDGNIAV
WDLHNQTLVRQFQGHTDGASCIDISNDGTKLWTGGLDNTVRSWDLREGRQLQQHDFTSQIFSLGYCPTGEWLAVG
MESSNVEVLHVNKPDKYQLHLHESCVLSLKFAYCGKWFVSTGKDNLLNAWRTPYGASIFQSKESSSVLSCDISVD
DKYIVTGSGDKKATVYEVIY

FIGURE 287

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GGCACGAGGAGGAGAAGAGCAAAGAAAAGCAGTCCGTCTGGATTTGTTTGCCCAGGACTGGCGCCGCGCACGCGG
ATCGCCGAGGGGAGTGCGGTCGGAGTCACCGCGCCCCCGCCTCCCCGCCCGGGCAGCTGAGGCCGGGGGTTGGAG
CGCTGCCCCCGCGCACAGTCCCCGAGCGCCCGACGTCTCCGCGCAGGTTCTTGAAGCAGCTGGGCCTGGGGCGCC
CACTAATGTGGCCCTGAGGGCCGGAGCCCGCACCGACGGGAGCGGGAGCCGGAGCAGCTGCGGGCGCCGAGTGGC
CGGTGCGCCCGGCGGAGCGCGCGTGCGTGGCCAGCGCGCTCCCCGCTTCTGCTTGGCTTTCCGGCTTAATTTTCC
TCGGCGGGATTAAAGTTGGAAATTGACCGGAGAATTGAGTTGCCGGGGAACAGAGCCCCGGCCGCCGCCAGAGCG
ATGTTCCCGCAGAGCCGGCACCCGACGCCGCACCAGGCTGCAGGCCAGCCCTTCAAGTTCACTATCCCGGAGTCC
CTGGACCGGATTAAAGAGGAATTCCAGTTCCTGCAGGCGCAGTATCACAGCCTTAAATTGGAATGTGAGAAACTG
GCAAGTGAAAAGACAGAAATGCAGAGGCACTATGTGATGTATTATGAAATGTCATATGGATTAAACATTGAAATG
CACAAACAGACTGAAATCGCCAAGAGATTGAATACGATTTGTGCACAAGTCATCCCATTTCTGTCTCAGGAACAT
CAACAACAGGTGGCCCAGGCTGTTGAACGTGCCAAACAGGTGACCATGGCAGAGTTGAATGCCATCATCGGGCAG
CAGCAGTTGCAAGCTCAGCATCTTTCTCATGGCCACGGACCCCCAGTTCCCCTTACGCCTCACCCTTCGGGACTT
CAGCCTCCTGGAATCCCGCCCCTCGGGGGCAGTGCCGGCCTTCTTGCGCTGTCTAGTGCTCTGAGTGGGCAGTCT
CACTTGGCAATAAAAGATGACAAGAAGCACCACGATGCAGAGCACCACAGAGACAGAGAGCCGGGCACAAGTAAT
TCCCTCCTGGTCCCAGACAGTCTAAGAGGCACAGATAAACGCAGAAATGGACCTGAATTTTCCAATGACATCAAG
AAAAGGAAGGTGGATGATAAGGACTCCAGCCACTATGACAGTGATGGTGACAAAAGCGATGACAACTTAGTTGTG
GATGTGTCTAATGAGGACCCTTCTTCTCCGCGAGCAAGCCCTGCCCACTCGCCCCGGGAAAATGGAATCGACAAA
AATCGCCTGCTAAAGAAGGATGCTTCTAGCAGTCCAGCTTCCACGGCCTCCTCGGCAAGTTCCACTTCTTTGAAA
TCCAAAGAAATGAGCTTGCATGAAAAAGCCAGCACGCCTGTTCTGAAATCCAGCACACCAACGCCTCGGAGCGAC
ATGCCAACGCCGGGCACCAGCGCCACTCCAGGCCTCCGTCCAGGTCTCGGCAAGCCTCCAGCCATAGACCCCCTC
GTTAACCAAGCGGCAGCTGGCTTGAGGACACCCCTGGCAGTGCCCGGCCCATATCCTGCTCCTTTTGGGATGGTC
CCCCACGCTGGCATGAACGGCGAGCTGACCAGCCCAGGCGCTGCCTACGCCAGTTTACACAACATGTCGCCCCAG
ATGAGCGCCGCAGCCGCCGCGGCCGCCGTGGTGGCCTACGGGCGCTCCCCCATGGTGGGGTTTGATCCTCCCCCT
CACATGAGAGTACCTACCATTCCTCCAAACCTGGCAGGAATCCCTGGGGGGAAACCTGCATACTCCTTCCACGTT
ACTGCAGACGGTCAGATGCAGCCTGTCCCTTTTCCCCCCGACGCCCTCATCGGACCCGGAATCCCCCGGCATGCT
CGCCAGATCAACACCCTCAACCACGGGGAGGTGGTGTGCGCTGTGACCATCAGCAACCCCACGAGACACGTGTAC
ACAGGCGGGAAGGGCTGCGTCAAGGTCTGGGACATCAGCCACCCTGGCAATAAGAGCCCTGTCTCCCAGCTCGAC
TGTCTGAACAGAGACAATTATATCCGTTCCTGTAAATTGCTACCCGATGGCTGCACTCTCATAGTGGGAGGGGAA
GCCAGTACTTTGTCCATTTGGGACCTGGCGGCTCCAACCCCGCGCATCAAGGCGGAGCTGACGTCCTCGGCCCCC
GCCTGCTACGCCCTGGCCATCAGCCCCGATTCCAAGGTCTGCTTCTCATGCTGCAGCGACGGCAACATCGCTGTG
TGGGATCTGCACAACCAGACACTAGTGAGGCAATTCCAGGGCCACACAGACGGAGCCAGCTGTATTGACATTTCT
AATGATGGCACCAAGCTCTGGACGGGTGGTTTGGACAACACAGTCAGGTCCTGGGACCTGCGCGAGGGGCGGCAG
CTGCAGCAGCACGACTTCACCTCCCAGATCTTCTCCCTGGGGTACTGCCCCACCGGGGAGTGGCTGGCAGTGGGC
ATGGAGAGCAGCAATGTGGAGGTGCTGCACGTGAACAAGCCTGACAAGTACCAGCTGCACCTGCATGAGAGCTGC
GTGCTGTCCCTGAAATTTGCTTACTGTGGTAAATGGTTTGTGAGTACTGGAAAAGATAACCTCCTCAATGCTTGG
CGGACCCCCTATGGAGCCAGCATATTCCAGTCCAAAGAGTCCTCGTCAGTGCTTAGCTGTGACATCTCTGTGGAT
GATAAGTACATAGTCACTGGCTCGGGGGACAAGAAGGCTACAGTCTATGAAGTCATCTACTGAAAACATTATGTG
GTTTAACGTTTATAGTTGAATTGGGCCAAAATGTTTCGAATTTATAGAAATAGAAAGTTGTAACTTTAAAAGAG
AAAAAAAATTACAAACACCTGTTTCCAAACCTTGACAGAAAACTACTTTGAGTCTACAAAGAGGAGGCGACAAGT
CCATCAGCAGAAAGTCACCTGTCTACATAGACCAAATGGAGCACCAAGGCCAAGCGGACAGAGGGGCCATGGGTT
GTAGGATTGAGGAACGGAATCTGCCGACTCACATGACAGCCCATTCTTTCTTTCTGGGTGATCTGGGGATCACGC
CTTGCCCAAGTGTGAGATTACCTTTCTGTTCCTTGCAGTTCACCTCACTTTCCGTCCTTTGTAGAGCAGTGGTGT
CTCCAATGAACTTGTTTCCTGGTTTTGCATCTTGTGAAATGTTTTTTTGTATTTTTGTTGAAGGTTAAACATTTG
TATAAATTGTAAATATATTTGGTTTATTACAGTAAAGGCTTTAGTACCAATAAAAAAAAAAAAAAAAA
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FIGURE 288

MFPQSRHPTPHQAAGQPFKFTIPESLDRIKEEFQFLQAQYHSLKLECEKLASEKTEMQRHYVMYYEMSYGLNIEM
HKQTEIAKRLNTICAQVIPFLSQEHQQQVAQAVERAKQVTMAELNAIIGQQQLQAQHLSHGHGPPVPLTPHPSGL
QPPGIPPLGGSAGLLALSSALSGQSHLAIKDDKKHHDAEHHRDREPGTSNSLLVPDSLRGTDKRRNGPEFSNDIK
KRKVDDKDSSHYDSDGDKSDDNLVVDVSNEDPSSPRASPAHSPRENGIDKNRLLKKDASSSPASTASSASSTSLK
SKEMSLHEKASTPVLKSSTPTPRSDMPTPGTSATPGLRPGLGKPPAIDPLVNQAAAGLRTPLAVPGPYPAPFGMV
PHAGMNGELTSPGAAYASLHNMSPQMSAAAAAAAVVAYGRSPMVGFDPPPHMRVPTIPPNLAGIPGGKPAYSFHV
TADGQMQPVPFPPDALIGPGIPRHARQINTLNHGEVVCAVTISNPTRHVYTGGKGCVKVWDISHPGNKSPVSQLD
CLNRDNYIRSCKLLPDGCTLIVGGEASTLSIWDLAAPTPRIKAELTSSAPACYALAISPDSKVCFSCCSDGNIAV
WDLHNQTLVRQFQGHTDGASCIDISNDGTKLWTGGLDNTVRSWDLREGRQLQQHDFTSQIFSLGYCPTGEWLAVG
MESSNVEVLHVNKPDKYQLHLHESCVLSLKFAYCGKWFVSTGKDNLLNAWRTPYGASIFQSKESSSVLSCDISVD
DKYIVTGSGDKKATVYEVIY

FIGURE 289A

CTACTACAGTGGCGGACGTACAGGACCTGTTTCACTGCAGGGGGATCCAAAACAAGCCCCGTGGAGCAACAGCCA
GAGCAACAGCAGCTGCAAGACATTGTTTCTCTCCCTCTGCCCCCCCTTCCCCACGCAACCCCAGATCCATTTACA
CTTTACAGTTTTACCTCACAAAAACTACTACAAGCACCAAGCTCCCTGATGGAAAGGAGCATCGTGCATCAAGTC
ACCAGGGTGGTCCATTCAAGCTGCAGATTGTTTGTCATCCTTGTACAGCAATCTCCTCCTCCACTGCCACTACA
GGGAAGTGCATCACATGTCAGCATACTGGAGCATAGTGAAAGAGTCTATTTTGAAGCTTCAAACTTAGTGCTGCT
GCAGACCAGGAACAAGAGAGAAAGAGTGGATTTCAGCCTGCACGGATGGTCTTGAAACACAAATGGTTTTTGGTC
TAGGCGTTTTACACTGAGATTCTCCACTGCCACCCTTTCTACTCAAGCAAAATCTTCGTGAAAGATCTGCTGCA
AGGAACTGATAGCTTATGGTTCTCCATTGTGATGAAAGCACATGGTACAGTTTTCCAAAGAAATTAGACCATTTT
CTTCGTGAGAAAGAAATCGACGTGCTGTTTTCATAGGGTATTTCTCACTTCTCTGTGAAAGGAAGAAAGAACACG
CCTGAGCCCAAGAGCCCTCAGGAGCCCTCCAGAGCCTGTGGGAAGTCTCCATGGTGAAGTATAGGCTGAGGCTAC
CTGTGAACAGTACGCAGTGAATGTTCATCCAGAGCTGCTGTTGGCGGATTGTACCCACGGGGAGATGATTCCTCA
TGAAGAGCCTGGATCCCCTACAGAAATCAAATGTGACTTTCCGTTTATCAGACTAAAATCAGAGCCATCCAGACA
GTGAAACAGTCACCGTGGAGGGGGGACGGCGAAAA**ATG**AAATCCAACCAAGAGCGGAGCAACGAATGCCTGCCTC
CCAAGAAGCGCGAGATCCCCGCCACCAGCCGGTCCTCCGAGGAGAAGGCCCCTACCCTGCCCAGCGACAACCACC
GGGTGGAGGGCACAGCATGGCTCCCGGGCAACCCTGGTGGCCGGGGCCACGGGGGCGGGAGGCATGGGCCGGCAG
GGACCTCGGTGGAGCTTGGTTTACAACAGGGAATAGGTTTACACAAAGCATTGTCCACAGGGCTGGACTACTCCC
CGCCCAGCGCTCCCAGGTCTGTCCCCGTGGCCACCACGCTGCCTGCCGCGTACGCCACCCCGCAGCCAGGGACCC
CGGTGTCCCCGTGCAGTACGCTCACCTGCCGCACACCTTCCAGTTCATTGGGTCCTCCCAATACAGTGGAACCT
ATGCCAGCTTCATCCCATCACAGCTGATCCCCCCAACCGCCAACCCCGTCACCAGTGCAGTGGCCTCGGCCGCAG
GGGCCACCACTCCATCCCAGCGCTCCCAGCTGGAGGCCTATTCCACTCTGCTGGCCAACATGGGCAGTCTGAGCC
AGACGCCGGGACACAAGGCTGAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCATCAGCATCAGCAGC
AGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCACCTCAGCAGGGCTCCGGGGCTCATCACCCCGGGGT
CCCCCCCACCAGCCCAGCAGAACCAGTACGTCCACATTTCCAGTTCTCCGCAGAACACCGGCCGCACCGCCTCTC
CTCCGGCCATCCCCGTCCACCTCCACCCCCACCAGACGATGATCCCACACACGCTCACCCTGGGGCCCCCCTCCC
AGGTCGTCATGCAATACGCCGACTCCGGCAGCCACTTTGTCCCTCGGGAGGCCACCAAGAAAGCTGAGAGCAGCC
GGCTGCAGCAGGCCATCCAGGCCAAGGAGGTCCTGAACGGTGAGATGGAGAAGAGCCGGCGGTACGGGGCCCCGT
CCTCAGCCGACCTGGGCCTGGGCAAGGCAGGCGGCAAGTCGGTTCCTCACCCGTACGAGTCCAGGCACGTGGTGG
TCCACCCGAGCCCCTCAGACTACAGCAGTCGTGATCCTTCGGGGGTCCGGGCCTCTGTGATGGTCCTGCCCAACA
GCAACACGCCCGCAGCTGACCTGGAGGTGCAACAGGCCACTCATCGTGAAGCCTCCCCTTCTACCCTCAACGACA
AAAGTGGCCTGCATTTAGGGAAGCCTGGCCACCGGTCCTACGCGCTCTCACCCCACACGGTCATTCAGACCACAC
ACAGTGCTTCAGAGCCACTCCCGGTGGGACTGCCAGCCACGGCCTTCTACGCAGGGACTCAACCCCCTGTCATCG
GCTACCTGAGCGGCCAGCAGCAAGCAATCACCTACGCCGGCAGCCTGCCCCAGCACCTGGTGATCCCCGGCACAC
AGCCCCTGCTCATCCCGGTCGGCAGCACTGACATGGAAGCGTCGGGGGCAGCCCCGGCCATAGTCACGTCATCCC
CCCAGTTTGCTGCAGTGCCTCACACGTTCGTCACCACCGCCCTTCCCAAGAGCGAGAACTTCAACCCTGAGGCCC
TGGTCACCCAGGCCGCCTACCCAGCCATGGTGCAGGCCCAGATCCACCTGCCTGTGGTGCAGTCCGTGGCCTCCC
CGGCGGCGGCTCCCCCTACGCTGCCTCCCTACTTCATGAAAGGCTCCATCATCCAGTTGGCCAACGGGGAGCTAA
AGAAGGTGGAAGACTTAAAAACAGAAGATTTCATCCAGAGTGCAGAGATAAGCAACGACCTGAAGATCGACTCCA
GCACCGTAGAGAGGATTGAAGACAGCCATAGCCCGGGCGTGGCCGTGATACAGTTCGCCGTCGGGGAGCACCGAG
CCCAGGTCAGCGTTGAAGTTTTGGTAGAGTATCCTTTTTTTGTGTTTGGACAGGGCTGGTCATCCTGCTGTCCGG
AGAGAACCAGCCAGCTCTTTGATTTGCCGTGTTCCAAACTCTCAGTTGGGGATGTCTGCATCTCGCTTACCCTCA
AGAACCTGAAGAACGGCTCTGTTAAAAAGGGCCAGCCCGTGGATCCCGCCAGCGTCCTGCTGAAGCACTCAAAGG
CCGACGGCCTGGCGGGCAGCAGACACAGGTATGCCGAGCAGGAAACGGAATCAACCAGGGGAGTGCCCAGATGC
TCTCTGAGAATGGCGAACTGAAGTTTCCAGAGAAAATGGGATTGCCTGCAGCGCCCTTCCTCACCAAAATAGAAC
CCAGCAAGCCCGCGGCAACGAGGAAGAGGAGGTGGTCGGCGCCAGAGAGCCGCAAACTGGAGAAGTCAGAAGACG
AACCACCTTTGACTCTTCCTAAGCCTTCTCTAATTCCTCAGGAGGTTAAGATTTGCATTGAAGGCCGGTCTAATG
TAGGCAAG**TAG**AGGCAGCGTGGGGGAAAGGAAACGTGGCTCTCCCTTATCATTTGTATCCAGATTACTGTACTGT
AGGCTAAAATAACACAGTATTTACATGTTATCTTCTTAATTTTAGGTTTCTGTTCTAACCTTGTCATTAGAGTTA
CAGCAGGTGTGTCGCAGGAGACTGGTGCATATGCTTTTTCCACGAGTGTCTGTCAGTGAGCGGGCGGGAGGAAGG

FIGURE 289B

GCACAGCAGGAGCGGTCAGGGCTCCAGGCATCCCCGGGGAAGAAAGGAACGGGGCTTCACAGTGCCTGCCTTCTC
TAGCGGCACAGAAGCAGCCGGGGGCGCTGACTCCCGCTAGTGTCAGGAGAAAAGTCCCGTGGGAAGAGTCCTGCA
GGGGTGCAGGGTTGCACGCATGTGGGGGTGCACAGGCGCTGTGGCGGCGAGTGAGGGTCTCTTTTTCTCTGCCTC
CCTCTGCCTCACTCTCTTGCTATCGGCATGGGCCGGGGGGGTTCAGAGCAGTGTCCTCCTGGGGTTCCCACGTGC
AAAATCAACATCAGGAACCCAGCTTCAGGGCATCGCGGAGACGCGTCAGATGGCAGATTTGGAAAGTTAACCATT
TAAAAGAACATTTTTCTCTCCAACATATTTTACAATAAAAGCAACTTTTAATTGTATAGATATATATTTCCCCCT
ATGGGGCCTGACTGCACTGATATATATTTTTTTTAAAGAGCAACTGCCACATGCGGGATTTCATTTCTGCTTTTT
ACTAGTGCAGCGATGTCACCAGGGTGTTGTGGTGGACAGGGAAGCCCCTGCTGTCATGGCCCCACATGGGGTAAG
GGGGGTTGGGGGTGGGGGAGAGGGAGAGAGCGAACACCCACGCTGGTTTCTGTGCAGTGTTAGGAAAACCAATCA
GGTTATTGCATTGACTTCACTCCCAAGAGGTAGATGCAAACTGCCCTTCAGTGAGAGCAACAGAAGCTCTTCACG
TTGAGTTTGCGAAATCTTTTTGTCTTTGAACTCTAGTACTGTTTATAGTTCATGACTATGGACAACTCGGGTGCC
ACTTTTTTTTTTTCAGATTCCAGTGTGACATGAGGAATTAGATTTTGAAGATGAGCATATATTACTATCTTTAA
GCATTTAAAAATACTGTTCACACTTTATTACCAAGCATCTTGGTCTCTCATTCAACAAGTACTGTATCTCACTTT
AAACTCTTTGGGGAAAAAACAAAAACAAAAAAAACTAAGTTGCTTTCTTTTTTTCAACACTGTAACTACATTTCA
GCTCTGCAGAATTGCTGAAGAGCAAGATATTGAAAGTTTCAATGTGGTTTAAAGGGATGAATGTGAATTATGAAC
TAGTATGTGACAATAAATGACCACCAAGTACTACCTGACGGGAGGCACTTTTCACTTTGATGTCTGAGAATCAGT
TCAAGGCATATGCAGAGTTGGCAGAGAAACTGAGAGAAAAGGGATGGAGAAGAGAATACTCATTTTTGTCCAGTG
TTTTTCTTTTTAAGATGAACTTTTAAAGAACCTTGCGATTTGCACATATTGAGTTTATAACTTGTGTGATATTCC
TGCAGTTTTTATCCAATAACATTGTGGGAAAGGTTTGGGGGACTGAACGAGCATAAATAAATGTAGCAAAATTTC
TTTCTAACCTGCCTAAACTCTAGGCCATTTTATAAGGTTATGTTCCTTTGAAAATTCATTTTGGTCTTTTTACCA
CATCTGTCACAAAAAGCCAGGTCTTAGCGGGCTCTTAGAAACTCTGAGAATTTTCTTCAGATTCATTGAGAGAGT
TTTCCATAAAGACATTTATATATGTGAGCAAGATTTTTTTTAAACAATTACTTTATTATTGTTGTTATTAATGTT
ATTTTCAGAATGGCTTTTTTTTTCTATTCAAAATCAAATCGAGATTTAATGTTTGGTACAAACCCAGAAAGGGTA
TTTCATAGTTTTTAAACCTTTCATTCCCAGAGATCCGAAATATCATTTGTGGGTTTTGAATGCATCTTTAAAGTG
CTTTAAAAAAAAGTTTTATAAGTAGGGAGAAATTTTTAAATATTCTTACTTGGATGGCTGCAACTAAACTGAACA
AATACCTGACTTTTCTTTTACCCCATTGAAAATAGTACTTTCTTCGTTTCACAAATTAAAAAAAAAATCTGGTAT
CAACCCACATTTTGGCTGTCTAGTATTCATTTACATTTAGGGTTCACCAGGACTAATGATTTTTATAAACCGTTT
TCTGGGGTGTACCAAAAACATTTGAATAGGTTTAGAATAGCTAGAATAGTTCCTTGACTTTCCTCGAATTTCATT
ACCCTCTCAGCATGCTTGCAGAGAGCTGGGTGGGCTCATTCTTGCAGTCATACTGCTTATTAGTGCTGTATTTT
TTAAACGTTTCTGTTCAGAGAACTTGCTTAATCTTCCATATATTCTGCTCAGGGCACTTGCAATTATTAGGTTTT
GTTTTTCTTTTTGTTTTTTAGCCTTTGATGGTAAGAGGAATACGGGCTGCCACATAGACTTTGTTCTCATTAATA
TCACTATTTACAACTCATGTGGACTCAGAAAAACACACCACCTTTTGGCTTACTTCGAGTATTGAATTGACTG
GATCCACTAAACCAACACTAAGATGGGAAAACACACATGGTTTGGAGCAATAGGAACATCATCATAATTTTTGTG
GTTCTATTTCAGGTATAGGAATTATAAAATAATTGGTTCTTTCTAAACACTTGTCCCATTTCATTCTCTTGCTTT
TTTAGCATGTGCAATACTTTCTGTGCCAATAGAGTCTGACCAGTGTGCTATATAGTTAAAGCTCATTCCTTTTTG
GCTTTTTCCTTGTTTGGTTGATCTTCCCCATTCTGGCCAGAGCAGGGCTGGAGGGAAGGAGCCAGGAGGGAGAGA
GCCTCCCACCTTTCCCCTGCTGCGGATGCTGAGTGCTGGGGCGGGGAGCCTTCAGGAGCCCCGTGCGTCTGCCGC
CACGTTGCAGAAAGAGCCAGCCAAGGAGACCCGGGGGAGGAACCGCAGTGTCCCCTGTCACCACACGGAATAGTG
AATGTGGAGTGTGGAGAGGAAGGAGGCAGATTCATTTCTAAGACGCACTCTGGAGCCATGTAGCCTGGAGTCAAC
CCATTTTCCACGGTCTTTTCTGCAAGTGGGCAGGCCCCTCCTCGGGGTCTGTGTCCTTGAGACTTGGAGCCCTGC
CTCTGAGCCTGGACGGGAAGTGTGGCCTGTTGTGTGTGTGCGTTCTGAGCGTGTTGGCCAGTGGCTGTGGAGGGG
ACCACCTGCCACCCACGGTCACCACTCCCTTGTGGCAGCTTTCTCTTCAAATAGGAAGAACGCACAGAGGGCAGG
AGCCTCCTGTTTGCAGACGTTGGCGGGCCCCGAGGCTCCCAGAGCAGCCTCTGTCACCGCTTCTGTGTAGCAAAC
ATTAACGATGACAGGGGTAGAAATTCTTCGGTGCCGTTCAGCTTACAAGGATCAGCCATGTGCCTCTGTACTATG
TCCACTTTGCAATATTTACCGACAGCCGTCTTTTGTTCTTTCTTTCCTGTTTTCCATTTTTAAACTAGTAACAGC
AGGCCTTTTGCGTTTACAATGGAACACAATCACCAAGAAATTAGTCAGGGCGAAAGAAAAAAATAATACTATTA
ATAAGAAACCAACAAACAAGAACCTCTCTTTCTAGGGATTTCTAAATATATAAAATGACTGTTCCTTAGAATGTT
TAACTTAAGAATTATTTCAGTTTGTCTGGGCCACACTGGGGCAGAGGGGGGAGGGAGGGATACAGAGATGGATGC

FIGURE 289C

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CACTTACCTCAGATCTTTTAAAGTGGAAATCCAAATTGAATTTTCATTTGGACTTTCAGGATAATTTTCTATGTT
GGTCAACTTTTCGTTTTCCCTAACTCACCCAGTTTAGTTTGGGATGATTTGATTTCTGTTGTTGTTGATCCCATT
TCTAACTTGGAATTGTGAGCCTCTATGTTTTCTGTTAGGTGAGTGTGTTGGGTTTTTTCCCCCCACCAGGAAGTG
GCAGCATCCCTCCTTCTCCCCTAAAGGGACTCTGCGGAACCTTTCACACCTCTTTCTCAGGGACGGGGCAGGTGT
GTGTGTGGTACACTGACGTGTCCAGAAGCAGCACTTTGACTGCTCTGGAGTAGGGTTGTACAATTTCAAGGAATG
TTTGGATTTCCTGCATCTTGTGGATTACTCCTTAGATACCGCATAGATTGCAATATAATGCTGCATGTTCAAGAT
GAACAGTAGCTCCTAGTAATCATAAAATCCACTCTTTGCACAGTTTGATCTTTACTGAAATATGTTGCCAAAATT
TATTTTTGTTGTTGTAGCTCTGGATTTTGTTTTGTTTTGTTTTTTAAGGAAACGATTGACAATACCCTTTAACAT
CTGTGACTACTAAGGAAACCTATTTCTTTCATAGAGAGAAAAATCTCCAATGCTTTTGAAGACACTAATACCGTG
CTATTTCAGATATGGGTGAGGAAGCAGAGCTCTCGGTACCGAAGGCCGGGCTTCTTGAGCTGTGTTGGTTGTCAT
GGCTACTGTTTCATGAACCACAAGCAGCTCAACAGACTGGTCTGTTGCCTTCTGAAACCCTTTGCACTTCAATTT
GCACCAGGTGAAAACAGGGCCAGCAGACTCCATGGCCCAATTCGGTTTCTTCGGTGGTGATGTGAAAGGAGAGAA
TTACACTTTTTTTTTTTTTAAGTGGCGTGGAGGCCTTTGCTTCCACATTTGTTTTTAACCCAGAATTTCTGAAAT
AGAGAATTTAAGAACACATCAAGTAATAAATATACAGAGAATATACTTTTTTATAAAGCACATGCATCTGCTATT
GTGTTGGGTTGGTTTCCTCTCTTTTCCACGGACAGTGTTGTGTTTCTGGCATAGGGAAACTCCAAACAACTTGCA
CACCTCTACTCCGGAGCTGAGATTTCTTTTACATAGATGACCTCGCTTCAAATACGTTACCTTACTGATGATAGG
ATCTTTTCTTGTAGCACTATACCTTGTGGGAATTTTTTTTAAATGTACACCTGATTTGAGAAGCTGAAGAAAAC
AAAATTTTGAAGCACTCACTTTGAGGAGTACAGGTAATGTTTTAAAAAATTGCACAAAAGAAAAATGAATGTCGA
AATGATTCATTCAGTGTTTGAAAGATATGGCTCTGTTGAAACAATGAGTTTCATACTTTGTTTGTAAAAAAAAAA
AGCAGAGAAGGGTTGAAAGTTACATGTTTTTTTGTATATAGAAATTTGTCATGTCTAAATGATCAGATTTGTATG
GTTATGGCCTGGAAGAATTACTACGTAAAAGGCTCTTAAACTATACCTATGCTTATTGTTATTTTGTTACATAT
AGCCCTCGTCTGAGGGAGGGGAACTCGGTATTCTGCGATTTGAGAATACTGTTCATTCCTATGCTGAAAGTACTT
CTCTGAGCTCCCTTCTTAGTCTAAACTCTTAAGCCATTGCAACTTCTTTTTCTTCAGAGATGATGTTTGACATTT
TCAGCACTTCCTGTTCCTATAAACCCAAAGAATATAATCTTGAACACGAAGTGTTTGTAACAAGGGATCCAGGCT
ACCAATCAAACAGGACTCATTATGGGGACAAAAAAAAAAAAAAATTATTTCACCTTCTTTCCCCCCACACCTCATT
TAAATGGGGGGAGTAAAAACATGATTTCAATGTAAATGCCTCATTTATTTTAGTTTTATTTTGATTTTTATTTA
ATATAAAGAGGCCAGAATAAATACGGAGCATCTTCTCAGAATAGTATTCCTGTCCAAAAATCAAGCCGGACAGTG
GAAACTGGACAGCTGTGGGGATATTAAGCACCCCCACTTACAATTCTTAAATTCAGAATCTCGTCCCCTCCCTTC
TCGTTGAAGGCAACTGTTCTGGTAGCTAACTTTCTCCTGTGTAATGGCGGGAGGGAACACCGGCTTCAGTTTTTC
ATGTCCCCATGACTTGCATACAAATGGTTCAACTGTATTAAAATTAAGTGCATTGGCCAATAGGTAGTATCTAT
ACAATAACAACAATCTCTAAGAATTTCCATAACTTTTCTTATCTGAAAGGACTCAAGTCTTCCACTGCAGATACA
TTGGAGGCTTCACCCACGTTTTCTTTCCCTTTAGTTTGTTTGCTGTCTGGATGGCCAATGAGCCTGTCTCCTTTT
CTGTGGCCAATCTGAAGGCCTTCGTTGGAAGTGTTGTTCACAGTAATCCTTACCAAGATAACATACTGTCCTCCA
GAATACCAAGTATTAGGTGACACTAGCTCAAGCTGTTGTCTTCAGAGCAGTTACCAAGAAGCTCGGTGCACAGGT
TTTCTCTGGTTCTTACAGGAACCACCTACTCTTTCAGTTTTCTGGCCCAGGAGTGGGGTAAATCCTTTAGTTAGT
GCATTTGAACTTGGTACCTGTGCATTCAGTTCTGTGAATACTGCCCTTTTTGGCGGGGTTTCCTCATCTCCCCAG
CCTGAACTGCTCAACTCTAAACCCAAATTAGTGTCAGCCGAAAGGAGGTTTCAAGATAGTCCTGTCAGTATTTGT
GGTGACCTTCAGATTAGACAGTCTTCATTTCCAGCCAGTGGAGTCCTGGCTCCAGAGCCATCTCTGAGACTCCGT
ACTACTGGATGTTTTAATATCAGATCATTACCCACCATATGCCTCCCACAGGCCAAGGGAAAACAGACACCAGAA
CTTGGGTTGAGGGCACTACCAGACTGACATGGCCAGTACAGAGGAGAACTAGGGAAGGAATGATGTTTTGCACCT
TATTGAAAAGAAAATTTTAAGTGCATACATAATAGTTAAGAGCTTTTATTGTGACAGGAGAACTTTTTTCCATAT
GCGTGCATACTCTCTGTAATTCCAGTGTAAAATATTGTACTTGCACTAGCTTTTTTAAACAAATATTAAAAAATG
GAAGAATTCATATTCTATTTTCTAATCGTGGTGTGTCTATTTGTAGGATACACTCGAGTCTGTTTATTGAATTTT
ATGGTCCCTTTCTTTGATGGTGCTTGCAGGTTTTCTAGGTAGAAATTATTTCATTATTATAATAAAACAATGTTT
GATTCAAAATTTGAACAAAATTGTTTTAAATAAATTGTCTGTATACCAGTACAAGTTTATTGTTTCAGTATACTC
GTACTAATAAAATAACAGTGCCAATTGCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAA
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FIGURE 290

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MKSNQERSNECLPPKKREIPATSRSSEEKAPTLPSDNHRVEGTAWLPGNPGGRGHGGGRHGPAGTSVELGLQQGI
GLHKALSTGLDYSPPSAPRSVPVATTLPAAYATPQPGTPVSPVQYAHLPHTFQFIGSSQYSGTYASFIPSQLIPP
TANPVTSAVASAAGATTPSQRSQLEAYSTLLANMGSLSQTPGHKAEQQQQQQQQQQQQHQHQQQQQQQQQQQQQQ
QHLSRAPGLITPGSPPPAQQNQYVHISSSPQNTGRTASPPAIPVHLHPHQTMIPHTLTLGPPSQVVMQYADSGSH
FVPREATKKAESSRLQQAIQAKEVLNGEMEKSRRYGAPSSADLGLGKAGGKSVPHPYESRHVVVHPSPSDYSSRD
PSGVRASVMVLPNSNTPAADLEVQQATHREASPSTLNDKSGLHLGKPGHRSYALSPHTVIQTTHSASEPLPVGLP
ATAFYAGTQPPVIGYLSGQQQAITYAGSLPQHLVIPGTQPLLIPVGSTDMEASGAAPAIVTSSPQFAAVPHTFVT
TALPKSENFNPEALVTQAAYPAMVQAQIHLPVVQSVASPAAAPPTLPPYFMKGSIIQLANGELKKVEDLKTEDFI
QSAEISNDLKIDSSTVERIEDSHSPGVAVIQFAVGEHRAQVSVEVLVEYPFFVFGQGWSSCCPERTSQLFDLPCS
KLSVGDVCISLTLKNLKNGSVKKGQPVDPASVLLKHSKADGLAGSRHRYAEQENGINQGSAQMLSENGELKFPEK
MGLPAAPFLTKIEPSKPAATRKRRWSAPESRKLEKSEDEPPLTLPKPSLIPQEVKICIEGRSNVGK
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FIGURE 291A

CTACTACAGTGGCGGACGTACAGGACCTGTTTCACTGCAGGGGGATCCAAAACAAGCCCCGTGGAGCAACAGCCA
GAGCAACAGCAGCTGCAAGACATTGTTTCTCTCCCTCTGCCCCCCCTTCCCCACGCAACCCCAGATCCATTTACA
CTTTACAGTTTTACCTCACAAAAACTACTACAAGCACCAAGCTCCCTGATGGAAAGGAGCATCGTGCATCAAGTC
ACCAGGGTGGTCCATTCAAGCTGCAGATTTGTTTGTCATCCTTGTACAGCAATCTCCTCCTCCACTGCCACTACA
GGGAAGTGCATCACATGTCAGCATACTGGAGCATAGTGAAAGAGTCTATTTTGAAGCTTCAAACTTAGTGCTGCT
GCAGACCAGGAACAAGAGAGAAAGAGTGGATTTCAGCCTGCACGGATGGTCTTGAAACACAAATGGTTTTTGGTC
TAGGCGTTTTACACTGAGATTCTCCACTGCCACCCTTTCTACTCAAGCAAAATCTTCGTGAAAGATCTGCTGCA
AGGAACTGATAGCTTATGGTTCTCCATTGTGATGAAAGCACATGGTACAGTTTTCCAAAGAAATTAGACCATTTT
CTTCGTGAGAAAGAAATCGACGTGCTGTTTTCATAGGGTATTTCTCACTTCTCTGTGAAAGGAAGAAAGAACACG
CCTGAGCCCAAGAGCCCTCAGGAGCCCTCCAGAGCCTGTGGGAAGTCTCCATGGTGAAGTATAGGCTGAGGCTAC
CTGTGAACAGTACGCAGTGAATGTTCATCCAGAGCTGCTGTTGGCGGATTGTACCCACGGGGAGATGATTCCTCA
TGAAGAGCCTGGATCCCCTACAGAAATCAAATGTGACTTTCCGTTTATCAGACTAAAATCAGAGCCATCCAGACA
GTGAAACAGTCACCGTGGAGGGGGGACGGCGAAAA**ATG**AAATCCAACCAAGAGCGGAGCAACGAATGCCTGCCTC
CCAAGAAGCGCGAGATCCCCGCCACCAGCCGGTCCTCCGAGGAGAAGGCCCCTACCCTGCCCAGCGACAACCACC
GGGTGGAGGGCACAGCATGGCTCCCGGGCAACCCTGGTGGCCGGGGCCACGGGGGCGGGAGGCATGGGCCGGCAG
GGACCTCGGTGGAGCTTGGTTTACAACAGGGAATAGGTTTACACAAAGCATTGTCCACAGGGCTGGACTACTCCC
CGCCCAGCGCTCCCAGGTCTGTCCCCGTGGCCACCACGCTGCCTGCCGCGTACGCCACCCCGCAGCCAGGGACCC
CGGTGTCCCCGTGCAGTACGCTCACCTGCCGCACACCTTCCAGTTCATTGGGTCCTCCCAATACAGTGGAACCT
ATGCCAGCTTCATCCCATCACAGCTGATCCCCCCAACCGCCAACCCCGTCACCAGTGCAGTGGCCTCGGCCGCAG
GGGCCACCACTCCATCCCAGCGCTCCCAGCTGGAGGCCTATTCCACTCTGCTGGCCAACATGGGCAGTCTGAGCC
AGACGCCGGGACACAAGGCTGAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCATCAGCATCAGCAGC
AGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCACCTCAGCAGGGCTCCGGGGCTCATCACCCCGGGGT
CCCCCCCACCAGCCCAGCAGAACCAGTACGTCCACATTTCCAGTTCTCCGCAGAACACCGGCCGCACCGCCTCTC
CTCCGGCCATCCCCGTCCACCTCCACCCCCACCAGACGATGATCCCACACACGCTCACCCTGGGGCCCCCCTCCC
AGGTCGTCATGCAATACGCCGACTCCGGCAGCCACTTTGTCCCTCGGGAGGCCACCAAGAAAGCTGAGAGCAGCC
GGCTGCAGCAGGCCATCCAGGCCAAGGAGGTCCTGAACGGTGAGATGGAGAAGAGCCGGCGGTACGGGGCCCCGT
CCTCAGCCGACCTGGGCCTGGGCAAGGCAGGCGGCAAGTCGGTTCCTCACCCGTACGAGTCCAGGCACGTGGTGG
TCCACCCGAGCCCCTCAGACTACAGCAGTCGTGATCCTTCGGGGGTCCGGGCCTCTGTGATGGTCCTGCCCAACA
GCAACACGCCCGCAGCTGACCTGGAGGTGCAACAGGCCACTCATCGTGAAGCCTCCCCTTCTACCCTCAACGACA
AAAGTGGCCTGCATTTAGGGAAGCCTGGCCACCGGTCCTACGCGCTCTCACCCCACACGGTCATTCAGACCACAC
ACAGTGCTTCAGAGCCACTCCCGGTGGGACTGCCAGCCACGGCCTTCTACGCAGGGACTCAACCCCCTGTCATCG
GCTACCTGAGCGGCCAGCAGCAAGCAATCACCTACGCCGGCAGCCTGCCCCAGCACCTGGTGATCCCCGGCACAC
AGCCCCTGCTCATCCCGGTCGGCAGCACTGACATGGAAGCGTCGGGGGCAGCCCCGGCCATAGTCACGTCATCCC
CCCAGTTTGCTGCAGTGCCTCACACGTTCGTCACCACCGCCCTTCCCAAGAGCGAGAACTTCAACCCTGAGGCCC
TGGTCACCCAGGCCGCCTACCCAGCCATGGTGCAGGCCCAGATCCACCTGCCTGTGGTGCAGTCCGTGGCCTCCC
CGGCGGCGGCTCCCCCTACGCTGCCTCCCTACTTCATGAAAGGCTCCATCATCCAGTTGGCCAACGGGGAGCTAA
AGAAGGTGGAAGACTTAAAAACAGAAGATTTCATCCAGAGTGCAGAGATAAGCAACGACCTGAAGATCGACTCCA
GCACCGTAGAGAGGATTGAAGACAGCCATAGCCCGGGCGTGGCCGTGATACAGTTCGCCGTCGGGGAGCACCGAG
CCCAGGTCAGCGTTGAAGTTTTGGTAGAGTATCCTTTTTTTGTGTTTGGACAGGGCTGGTCATCCTGCTGTCCGG
AGAGAACCAGCCAGCTCTTTGATTTGCCGTGTTCCAAACTCTCAGTTGGGGATGTCTGCATCTCGCTTACCCTCA
AGAACCTGAAGAACGGCTCTGTTAAAAAGGGCCAGCCCGTGGATCCCGCCAGCGTCCTGCTGAAGCACTCAAAGG
CCGACGGCCTGGCGGGCAGCAGACACAGGTATGCCGAGCAGGAAAACGGAATCAACCAGGGGAGTGCCCAGATGC
TCTCTGAGAATGGCGAACTGAAGTTTCCAGAGAAAATGGGATTGCCTGCAGCGCCCTTCCTCACCAAAATAGAAC
CCAGCAAGCCCGCGGCAACGAGGAAGAGGAGGTGGTCGGCGCCAGAGAGCCGCAAACTGGAGAAGTCAGAAGACG
AACCACCTTTGACTCTTCCTAAGCCTTCTCTAATTCCTCAGGAGGTTAAGATTTGCATTGAAGGCCGGTCTAATG
TAGGCAAG**TAG**AGGCAGCGTGGGGGAAAGGAAACGTGGCTCTCCCTTATCATTTGTATCCAGATTACTGTACTGT
AGGCTAAAATAACACAGTATTTACATGTTATCTTCTTAATTTTAGGTTTCTGTTCTAACCTTGTCATTAGAGTTA
CAGCAGGTGTGTCGCAGGAGACTGGTGCATATGCTTTTTCCACGAGTGTCTGTCAGTGAGCGGGCGGGAGGAAGG

FIGURE 291B

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GCACAGCAGGAGCGGTCAGGGCTCCAGGCATCCCCGGGGAAGAAAGGAACGGGGCTTCACAGTGCCTGCCTTCTC
TAGCGGCACAGAAGCAGCCGGGGGCGCTGACTCCCGCTAGTGTCAGGAGAAAAGTCCCGTGGGAAGAGTCCTGCA
GGGGTGCAGGGTTGCACGCATGTGGGGGTGCACAGGCGCTGTGGCGGCGAGTGAGGGTCTCTTTTTCTCTGCCTC
CCTCTGCCTCACTCTCTTGCTATCGGCATGGGCCGGGGGGGTTCAGAGCAGTGTCCTCCTGGGGTTCCCACGTGC
AAAATCAACATCAGGAACCCAGCTTCAGGGCATCGCGGAGACGCGTCAGATGGCAGATTTGGAAAGTTAACCATT
TAAAAGAACATTTTTCTCTCCAACATATTTTACAATAAAAGCAACTTTTAATTGTATAGATATATATTTCCCCCT
ATGGGGCCTGACTGCACTGATATATATTTTTTTTAAAGAGCAACTGCCACATGCGGGATTTCATTTCTGCTTTTT
ACTAGTGCAGCGATGTCACCAGGGTGTTGTGGTGGACAGGGAAGCCCCTGCTGTCATGGCCCCACATGGGGTAAG
GGGGGTTGGGGGTGGGGGAGAGGGAGAGAGCGAACACCCACGCTGGTTTCTGTGCAGTGTTAGGAAAACCAATCA
GGTTATTGCATTGACTTCACTCCCAAGAGGTAGATGCAAACTGCCCTTCAGTGAGAGCAACAGAAGCTCTTCACG
TTGAGTTTGCGAAATCTTTTTGTCTTTGAACTCTAGTACTGTTTATAGTTCATGACTATGGACAACTCGGGTGCC
ACTTTTTTTTTTTCAGATTCCAGTGTGACATGAGGAATTAGATTTTGAAGATGAGCATATATTACTATCTTTAA
GCATTTAAAAATACTGTTCACACTTTATTACCAAGCATCTTGGTCTCTCATTCAACAAGTACTGTATCTCACTTT
AAACTCTTTGGGGAAAAAACAAAAACAAAAAAAACTAAGTTGCTTTCTTTTTTTCAACACTGTAACTACATTTCA
GCTCTGCAGAATTGCTGAAGAGCAAGATATTGAAAGTTTCAATGTGGTTTAAAGGGATGAATGTGAATTATGAAC
TAGTATGTGACAATAAATGACCACCAAGTACTACCTGACGGGAGGCACTTTTCACTTTGATGTCTGAGAATCAGT
TCAAGGCATATGCAGAGTTGGCAGAGAAACTGAGAGAAAAGGGATGGAGAAGAGAATACTCATTTTTGTCCAGTG
TTTTTCTTTTTAAGATGAACTTTTAAAGAACCTTGCGATTTGCACATATTGAGTTTATAACTTGTGTGATATTCC
TGCAGTTTTTATCCAATAACATTGTGGGAAAGGTTTGGGGGACTGAACGAGCATAAATAAATGTAGCAAAATTTC
TTTCTAACCTGCCTAAACTCTAGGCCATTTTATAAGGTTATGTTCCTTTGAAAATTCATTTGGTCTTTTTACCA
CATCTGTCACAAAAAGCCAGGTCTTAGCGGGCTCTTAGAAACTCTGAGAATTTTCTTCAGATTCATTGAGAGAGT
TTTCCATAAAGACATTTATATATGTGAGCAAGATTTTTTTTAAACAATTACTTTATTATTGTTGTTATTAATGTT
ATTTTCAGAATGGCTTTTTTTTTCTATTCAAAATCAAATCGAGATTAATGTTTGGTACAAACCCAGAAAGGGTA
TTTCATAGTTTTTAAAACCTTTCATTCCCAGAGATCCGAAATATCATTTGTGGGTTTTGAATGCATCTTTAAAGTG
CTTTAAAAAAAAGTTTTATAAGTAGGGAGAAATTTTTAAATATTCTTACTTGGATGGCTGCAACTAAACTGAACA
AATACCTGACTTTTCTTTTACCCCATTGAAAATAGTACTTTCTTCGTTTCACAAATTAAAAAAAAAATCTGGTAT
CAACCCACATTTTGGCTGTCTAGTATTCATTTACATTTAGGGTTCACCAGGACTAATGATTTTATAAACCGTTT
TCTGGGGTGTACCAAAAACATTTGAATAGGTTTAGAATAGCTAGAATAGTTCCTTGACTTTCCTCGAATTTCATT
ACCCTCTCAGCATGCTTGCAGAGAGCTGGGTGGGCTCATTCTTGCAGTCATACTGCTTATTAGTGCTGTATTTT
TTAAACGTTTCTGTTCAGAGAACTTGCTTAATCTTCCATATATTCTGCTCAGGGCACTTGCAATTATTAGGTTTT
GTTTTTCTTTTTGTTTTTTAGCCTTTGATGGTAAGAGGAATACGGGCTGCCACATAGACTTTGTTCTCATTAATA
TCACTATTTACAACTCATGTGGACTCAGAAAAACACACACCACCTTTTGGCTTACTTCGAGTATTGAATTGACTG
GATCCACTAAACCAACACTAAGATGGGAAAACACACATGGTTTGGAGCAATAGGAACATCATCATAATTTTTGTG
GTTCTATTTCAGGTATAGGAATTATAAAATAATTGGTTCTTTCTAAACACTTGTCCCATTTCATTCTCTTGCTTT
TTTAGCATGTGCAATACTTTCTGTGCCAATAGAGTCTGACCAGTGTGCTATATAGTTAAAGCTCATTCCCTTTTG
GCTTTTTCCTTGTTTGGTTGATCTTCCCCATTCTGGCCAGAGCAGGGCTGGAGGGAAGGAGCCAGGAGGGAGAGA
GCCTCCCACCTTTCCCCTGCTGCGGATGCTGAGTGCTGGGGCGGGGAGCCTTCAGGAGCCCCGTGCGTCTGCCGC
CACGTTGCAGAAAGAGCCAGCCAAGGAGACCCGGGGGAGGAACCGCAGTGTCCCCTGTCACCACACGGAATAGTG
AATGTGGAGTGTGGAGAGGAAGGAGGCAGATTCATTTCTAAGACGCACTCTGGAGCCATGTAGCCTGGAGTCAAC
CCATTTTCCACGGTCTTTTCTGCAAGTGGGCAGGCCCCTCCTCGGGGTCTGTGTCCTTGAGACTTGGAGCCCTGC
CTCTGAGCCTGGACGGGAAGTGTGGCCTGTTGTGTGTGTGCGTTCTGAGCGTGTTGGCCAGTGGCTGTGGAGGGG
ACCACCTGCCACCCACGGTCACCACTCCCTTGTGGCAGCTTTCTCTTCAAATAGGAAGAACGCACAGAGGGCAGG
AGCCTCCTGTTTGCAGACGTTGGCGGGCCCCGAGGCTCCCAGAGCAGCCTCTGTCACCGCTTCTGTGTAGCAAAC
ATTAACGATGACAGGGGTAGAAATTCTTCGGTGCCGTTCAGCTTACAAGGATCAGCCATGTGCCTCTGTACTATG
TCCACTTTGCAATATTTACCGACAGCCGTCTTTTGTTCTTTCTTTCCTGTTTTCCATTTTTAAACTAGTAACAGC
AGGCCTTTTGCGTTTACAATGGAACACAATCACCAAGAAATTAGTCAGGGCGAAAGAAAAAAATAATACTATTA
ATAAGAAACCAACAAACAAGAACCTCTCTTTCTAGGGATTTCTAAATATATAAAATGACTGTTCCTTAGAATGTT
TAACTTAAGAATTATTTCAGTTTGTCTGGGCCACACTGGGGCAGAGGGGGGAGGGAGGGATACAGAGATGGATGC
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FIGURE 291C

CACTTACCTCAGATCTTTTAAAGTGGAAATCCAAATTGAATTTTCATTTGGACTTTCAGGATAATTTTCTATGTT
GGTCAACTTTTCGTTTTCCCTAACTCACCCAGTTTAGTTTGGGATGATTTGATTTCTGTTGTTGTTGATCCCATT
TCTAACTTGGAATTGTGAGCCTCTATGTTTTCTGTTAGGTGAGTGTGTTGGGTTTTTTCCCCCCACCAGGAAGTG
GCAGCATCCCTCCTTCTCCCCTAAAGGGACTCTGCGGAACCTTTCACACCTCTTTCTCAGGGACGGGGCAGGTGT
GTGTGTGGTACACTGACGTGTCCAGAAGCAGCACTTTGACTGCTCTGGAGTAGGGTTGTACAATTTCAAGGAATG
TTTGGATTTCCTGCATCTTGTGGATTACTCCTTAGATACCGCATAGATTGCAATATAATGCTGCATGTTCAAGAT
GAACAGTAGCTCCTAGTAATCATAAAATCCACTCTTTGCACAGTTTGATCTTTACTGAAATATGTTGCCAAAATT
TATTTTTGTTGTTGTAGCTCTGGATTTTGTTTTGTTTGTTTTTTAAGGAAACGATTGACAATACCCTTTAACAT
CTGTGACTACTAAGGAAACCTATTTCTTTCATAGAGAGAAAAATCTCCAATGCTTTTGAAGACACTAATACCGTG
CTATTTCAGATATGGGTGAGGAAGCAGAGCTCTCGGTACCGAAGGCCGGGCTTCTTGAGCTGTGTTGGTTGTCAT
GGCTACTGTTTCATGAACCACAAGCAGCTCAACAGACTGGTCTGTTGCCTTCTGAAACCCTTTGCACTTCAATTT
GCACCAGGTGAAAACAGGGCCAGCAGACTCCATGGCCCAATTCGGTTTCTTCGGTGGTGATGTGAAAGGAGAGAA
TTACACTTTTTTTTTTTTTAAGTGGCGTGGAGGCCTTTGCTTCCACATTTGTTTTTAACCCAGAATTTCTGAAAT
AGAGAATTTAAGAACACATCAAGTAATAAATATACAGAGAATATACTTTTTTATAAAGCACATGCATCTGCTATT
GTGTTGGGTTGGTTTCCTCTCTTTTCCACGGACAGTGTTGTGTTTCTGGCATAGGGAAACTCCAAACAACTTGCA
CACCTCTACTCCGGAGCTGAGATTTCTTTTACATAGATGACCTCGCTTCAAATACGTTACCTTACTGATGATAGG
ATCTTTTCTTGTAGCACTATACCTTGTGGGAATTTTTTTTAAATGTACACCTGATTTGAGAAGCTGAAGAAAAC
AAAATTTTGAAGCACTCACTTTGAGGAGTACAGGTAATGTTTTAAAAAAATTGCACAAAAGAAAAATGAATGTCGA
AATGATTCATTCAGTGTTTGAAAGATATGGCTCTGTTGAAACAATGAGTTTCATACTTTGTTTGTAAAAAAAAAA
AGCAGAGAAGGGTTGAAAGTTACATGTTTTTTTGTATATAGAAATTTGTCATGTCTAAATGATCAGATTTGTATG
GTTATGGCCTGGAAGAATTACTACGTAAAAGGCTCTTAAACTATACCTATGCTTATTGTTATTTTTGTTACATAT
AGCCCTCGTCTGAGGGAGGGGAACTCGGTATTCTGCGATTTGAGAATACTGTTCATTCCTATGCTGAAAGTACTT
CTCTGAGCTCCCTTCTTAGTCTAAACTCTTAAGCCATTGCAACTTCTTTTTCTTCAGAGATGATGTTTGACATTT
TCAGCACTTCCTGTTCCTATAAACCCAAAGAATATAATCTTGAACACGAAGTGTTTGTAACAAGGGATCCAGGCT
ACCAATCAAACAGGACTCATTATGGGGACAAAAAAAAAAAAAAATTATTTCACCTTCTTTCCCCCCACACCTCATT
TAAATGGGGGGAGTAAAAACATGATTTCAATGTAAATGCCTCATTTTATTTTAGTTTTATTTTGATTTTTATTTA
ATATAAAGAGGCCAGAATAAATACGGAGCATCTTCTCAGAATAGTATTCCTGTCCAAAAATCAAGCCGGACAGTG
GAAACTGGACAGCTGTGGGGATATTAAGCACCCCCACTTACAATTCTTAAATTCAGAATCTCGTCCCCTCCCTTC
TCGTTGAAGGCAACTGTTCTGGTAGCTAACTTTCTCCTGTGTAATGGCGGGAGGGAACACCGGCTTCAGTTTTTC
ATGTCCCCATGACTTGCATACAAATGGTTCAACTGTATTAAAATTAAGTGCATTTGGCCAATAGGTAGTATCTAT
ACAATAACAACAATCTCTAAGAATTTCCATAACTTTTCTTATCTGAAAGGACTCAAGTCTTCCACTGCAGATACA
TTGGAGGCTTCACCCACGTTTTCTTTCCCTTTAGTTTGTTTGCTGTCTGGATGGCCAATGAGCCTGTCTCCTTTT
CTGTGGCCAATCTGAAGGCCTTCGTTGGAAGTGTTGTTCACAGTAATCCTTACCAAGATAACATACTGTCCTCCA
GAATACCAAGTATTAGGTGACACTAGCTCAAGCTGTTGTCTTCAGAGCAGTTACCAAGAAGCTCGGTGCACAGGT
TTTCTCTGGTTCTTACAGGAACCACCTACTCTTTCAGTTTTCTGGCCCAGGAGTGGGGTAAATCCTTTAGTTAGT
GCATTTGAACTTGGTACCTGTGCATTCAGTTCTGTGAATACTGCCCTTTTTGGCGGGGTTTCCTCATCTCCCCAG
CCTGAACTGCTCAACTCTAAACCCAAATTAGTGTCAGCCGAAAGGAGGTTTCAAGATAGTCCTGTCAGTATTTGT
GGTGACCTTCAGATTAGACAGTCTTCATTTCCAGCCAGTGGAGTCCTGGCTCCAGAGCCATCTCTGAGACTCCGT
ACTACTGGATGTTTTAATATCAGATCATTACCCACCATATGCCTCCCACAGGCCAAGGGAAAACAGACACCAGAA
CTTGGGTTGAGGGCACTACCAGACTGACATGGCCAGTACAGAGGAGAACTAGGGAAGGAATGATGTTTTGCACCT
TATTGAAAAGAAAATTTTAAGTGCATACATAATAGTTAAGAGCTTTTATTGTGACAGGAGAACTTTTTTCCATAT
GCGTGCATACTCTCTGTAATTCCAGTGTAAAATATTGTACTTGCACTAGCTTTTTTAAACAAATATTAAAAAATG
GAAGAATTCATATTCTATTTTCTAATCGTGGTGTGTCTATTTGTAGGATACACTCGAGTCTGTTTATTGAATTTT
ATGGTCCCTTTCTTTGATGGTGCTTGCAGGTTTTCTAGGTAGAAATTATTTCATTATTATAATAAAACAATGTTT
GATTCAAAATTTGAACAAAATTGTTTTAAATAAATTGTCTGTATACCAGTACAAGTTTATTGTTTCAGTATACTC
GTACTAATAAAATAACAGTGCCAATTGCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAA

FIGURE 292

MKSNQERSNECLPPKKREIPATSRSSEEKAPTLPSDNHRVEGTAWLPGNPGGRGHGGGRHGPAGTSVELGLQQGI
GLHKALSTGLDYSPPSAPRSVPVATTLPAAYATPQPGTPVSPVQYAHLPHTFQFIGSSQYSGTYASFIPSQLIPP
TANPVTSAVASAAGATTPSQRSQLEAYSTLLANMGSLSQTPGHKAEQQQQQQQQQQQQHQHQQQQQQQQQQQQQQQ
QHLSRAPGLITPGSPPPAQQNQYVHISSSPQNTGRTASPPAIPVHLHPHQTMIPHTLTLGPPSQVVMQYADSGSH
FVPREATKKAESSRLQQAIQAKEVLNGEMEKSRRYGAPSSADLGLGKAGGKSVPHPYESRHVVVHPSPSDYSSRD
PSGVRASVMVLPNSNTPAADLEVQQATHREASPSTLNDKSGLHLGKPGHRSYALSPHTVIQTTHSASEPLPVGLP
ATAFYAGTQPPVIGYLSGQQQAITYAGSLPQHLVIPGTQPLLIPVGSTDMEASGAAPAIVTSSPQFAAVPHTFVT
TALPKSENFNPEALVTQAAYPAMVQAQIHLPVVQSVASPAAAPPTLPPYFMKGSIIQLANGELKKVEDLKTEDFI
QSAEISNDLKIDSSTVERIEDSHSPGVAVIQFAVGEHRAQVSVEVLVEYPFFVFGQGWSSCCPERTSQLFDLPCS
KLSVGDVCISLTLKNLKNGSVKKGQPVDPASVLLKHSKADGLAGSRHRYAEQENGINQGSAQMLSENGELKFPEK
MGLPAAPFLTKIEPSKPAATRKRRWSAPESRKLEKSEDEPPLTLPKPSLIPQEVKICIEGRSNVGK

FIGURE 293

GGCGAATGGAGCAGGGGCGCGCAGATAATTAAAGATTTACACACAGCTGGAAGAAATCATAGAGAAGCCGGGCGT
GGTGGCTCATGCCTATAATCCCAGCACTTTTGGAGGCTGAGGCGGGCAGATCACTTGAGATCAGGAGTTCGAGAC
CAGCCTGGTGCCTTGGCATCTCCCA**ATG**GGGTGGCTTTGCTCTGGGCTCCTGTTCCCTGTGAGCTGCCTGGTCCT
GCTGCAGGTGGCAAGCTCTGGGAACATGAAGGTCTTGCAGGAGCCCACCTGCGTCTCCGACTACATGAGCATCTC
TACTTGCGAGTGGAAGATGAATGGTCCCACCAATTGCAGCACCGAGCTCCGCCTGTTGTACCAGCTGGTTTTTCT
GCTCTCCGAAGCCCACACGTGTATCCCTGAGAACAACGGAGGCGCGGGGTGCGTGTGCCACCTGCTCATGGATGA
CGTGGTCAGTGCGGATAACTATACACTGGACCTGTGGGCTGGGCAGCAGCTGCTGTGGAAGGGCTCCTTCAAGCC
CAGCGAGCATGTGAAACCCAGGGCCCCAGGAAACCTGACAGTTCACACCAATGTCTCCGACACTCTGCTGCTGAC
CTGGAGCAACCCGTATCCCCCTGACAATTACCTGTATAATCATCTCACCTATGCAGTCAACATTTGGAGTGAAAA
CGACCCGGCAGATTTCAGAATCTATAACGTGACCTACCTAGAACCCTCCCTCCGCATCGCAGCCAGCACCCTGAA
GTCTGGGATTTCCTACAGGGCACGGGTGAGGGCCTGGGCTCAGTGCTATAACACCACCTGGAGTGAGTGGAGCCC
CAGCACCAAGTGGCACAACTCCTACAGGGAGCCCTTCGAGCAGCACCTCCTGCTGGGCGTCAGCGTTTCCTGCAT
TGTCATCCTGGCCGTCTGCCTGTTGTGCTATGTCAGCATCACCAAGATTAAGAAAGAATGGTGGGATCAGATTCC
CAACCCAGCCCGCAGCCGCCTCGTGGCTATAATAATCCAGGATGCTCAGGGGTCACAGTGGGAGAAGCGGTCCCG
AGGCCAGGAACCAGCCAAGTGCCCACACTGGAAGAATTGTCTTACCAAGCTCTTGCCCTGTTTTCTGGAGCACAA
CATGAAAAGGGATGAAGATCCTCACAAGGCTGCCAAAGAGATGCCTTTCCAGGGCTCTGGAAAATCAGCATGGTG
CCCAGTGGAGATCAGCAAGACAGTCCTCTGGCCAGAGAGCATCAGCGTGGTGCGATGTGTGGAGTTGTTTGAGGC
CCCGGTGGAGTGTGAGGAGGAGGAGGAGGTAGAGGAAGAAAAAGGGAGCTTCTGTGCATCGCCTGAGAGCAGCAG
GGATGACTTCCAGGAGGGAAGGGAGGGCATTGTGGCCCGGCTAACAGAGAGCCTGTTCCTGGACCTGCTCGGAGA
GGAGAATGGGGGCTTTTGCCAGCAGGACATGGGGGAGTCATGCCTTCTTCCACCTTCGGGAAGTACGAGTGCTCA
CATGCCCTGGGATGAGTTCCCAAGTGCAGGGCCCAAGGAGGCACCTCCCTGGGGCAAGGAGCAGCCTCTCCACCT
GGAGCCAAGTCCTCCTGCCAGCCCGACCCAGAGTCCAGACAACCTGACTTGCACAGAGACGCCCCTCGTCATCGC
AGGCAACCCTGCTTACCGCAGCTTCAGCAACTCCCTGAGCCAGTCACCGTGTCCCAGAGAGCTGGGTCCAGACCC
ACTGCTGGCCAGACACCTGGAGGAAGTAGAACCCGAGATGCCCTGTGTCCCCCAGCTCTCTGAGCCAACCACTGT
GCCCCAACCTGAGCCAGAAACCTGGGAGCAGATCCTCCGCCGAAATGTCCTCCAGCATGGGGCAGCTGCAGCCCC
CGTCTCGGCCCCCACCAGTGGCTATCAGGAGTTTGTACATGCGGTGGAGCAGGGTGGCACCCAGGCCAGTGCGGT
GGTGGGCTTGGGTCCCCCAGGAGAGGCTGGTTACAAGGCCTTCTCAAGCCTGCTTGCCAGCAGTGCTGTGTCCCC
AGAGAAATGTGGGTTTGGGGCTAGCAGTGGGGAAGAGGGGTATAAGCCTTTCCAAGACCTCATTCCTGGCTGCCC
TGGGGACCCTGCCCCAGTCCCTGTCCCCTTGTTCACCTTTGGACTGGACAGGGAGCCACCTCGCAGTCCGCAGAG
CTCACATCTCCCAAGCAGCTCCCCAGAGCACCTGGGTCTGGAGCCGGGGGAAAAGGTAGAGGACATGCCAAAGCC
CCCACTTCCCCAGGAGCAGGCCACAGACCCCCTTGTGGACAGCCTGGGCAGTGGCATTGTCTACTCAGCCCTTAC
CTGCCACCTGTGCGGCCACCTGAAACAGTGTCATGGCCAGGAGGATGGTGGCCAGACCCCTGTCATGGCCAGTCC
TTGCTGTGGCTGCTGCTGTGGAGACAGGTCCTCGCCCCCTACAACCCCCTGAGGGCCCCAGACCCCTCTCCAGG
TGGGGTTCCACTGGAGGCCAGTCTGTGTCCGGCCTCCCTGGCACCCTCGGGCATCTCAGAGAAGAGTAAATCCTC
ATCATCCTTCCATCCTGCCCCTGGCAATGCTCAGAGCTCAAGCCAGACCCCCAAAATCGTGAACTTTGTCTCCGT
GGGACCCACATACATGAGGGTCTCT**TAG**GTGCATGTCCTCTTGTTGCTGAGTCTGCAGATGAGGACTAGGGCTTA
TCCATGCCTGGGAAATGCCACCTCCTGGAAGGCAGCCAGGCTGGCAGATTTCCAAAAGACTTGAAGAACCATGGT
ATGAAGGTGATTGGCCCCACTGACGTTGGCCTAACACTGGGCTGCAGAGACTGGACCCCGCCCAGCATTGGGCTG
GGCTCGCCACATCCCATGAGAGTAGAGGGCACTGGGTCGCCGTGCCCCACGGCAGGCCCCTGCAGGAAAACTGAG
GCCCTTGGGCACCTCGACTTGTGAACGAGTTGTTGGCTGCTCCCTCCACAGCTTCTGCAGCAGACTGTCCCTGTT
GTAACTGCCCAAGGCATGTTTTGCCCACCAGATCATGGCCCACGTGGAGGCCCACCTGCCTCTGTCTCACTGAAC
TAGAAGCCGAGCCTAGAAACTAACACAGCCATCAAGGGAATGACTTGGGCGGCCTTGGGAAATCGATGAGAAATT
GAACTTCAGGGAGGGTGGTCATTGCCTAGAGGTGCTCATTCATTTAACAGAGCTTCCTTAGGTTGATGCTGGAGG
CAGAATCCCGGCTGTCAAGGGGTGTTCAGTTAAGGGGAGCAACAGAGGACATGAAAAATTGCTATGACTAAAGCA
GGGACAATTTGCTGCCAAACACCCATGCCCAGCTGTATGGCTGGGGGCTCCTCGTATGCATGGAACCCCCAGAAT
AAATATGCTCAGCCACCCTGTGGGCCGGGCAATCCAGACAGCAGGCATAAGGCACCAGTTACCCTGCATGTTGGC
CCAGACCTCAGGTGCTAGGGAAGGCGGGAACCTTGGGTTGAGTAATGCTCGTCTGTGTGTTTAGTTTCATCACC
TGTTATCTGTGTTTGCTGAGGAGAGTGGAACAGAAGGGGTGGAGTTTTGTATAAATAAAGTTTCTTTGTCTC

FIGURE 294

MGWLCSGLLFPVSCLVLLQVASSGNMKVLQEPTCVSDYMSISTCEWKMNGPTNCSTELRLLYQLVFLLSEAHTCI
PENNGGAGCVCHLLMDDVVSADNYTLDLWAGQQLLWKGSFKPSEHVKPRAPGNLTVHTNVSDTLLLTWSNPYPPD
NYLYNHLTYAVNIWSENDPADFRIYNVTYLEPSLRIAASTLKSGISYRARVRAWAQCYNTTWSEWSPSTKWHNSY
REPFEQHLLLGVSVSCIVILAVCLLCYVSITKIKKEWWDQIPNPARSRLVAIIIQDAQGSQWEKRSRGQEPAKCP
HWKNCLTKLLPCFLEHNMKRDEDPHKAAKEMPFQGSGKSAWCPVEISKTVLWPESISVVRCVELFEAPVECEEEE
EVEEEKGSFCASPESSRDDFQEGREGIVARLTESLFLDLLGEENGGFCQQDMGESCLLPPSGSTSAHMPWDEFPS
AGPKEAPPWGKEQPLHLEPSPPASPTQSPDNLTCTETPLVIAGNPAYRSFSNSLSQSPCPRELGPDPLLARHLEE
VEPEMPCVPQLSEPTTVPQPEPETWEQILRRNVLQHGAAAAPVSAPTSGYQEFVHAVEQGGTQASAVVGLGPPGE
AGYKAFSSLLASSAVSPEKCGFGASSGEEGYKPFQDLIPGCPGDPAPVPVPLFTFGLDREPPRSPQSSHLPSSSP
EHLGLEPGEKVEDMPKPPLPQEQATDPLVDSLGSGIVYSALTCHLCGHLKQCHGQEDGGQTPVMASPCCGCCCGD
RSSPPTTPLRAPDPSPGGVPLEASLCPASLAPSGISEKSKSSSSFHPAPGNAQSSSQTPKIVNFVSVGPTYMRVS

FIGURE 295

ATTCGAGTGCTCCGGAGAACAGACCCGCGCCCCGCCGTCCGCGAGCCTCCCGAGAGCCGTCCCTTCGTCCGGCCC
TGGAGCATTGCGTTTGTCGCCGGTGTCGCAGTGCGAGGATGGCGCCGCGGGTGTAGCGGCTCTCTGCGCAGGCCG
AGTGGGCCCAGAGAAGCGAGGAACTCCCCAGATCGCCGACACGTCTCGTCTCCTGTCCCAATTCAGGGCTTGGTG
AGGTGACTCGCGGTCGCGGGTGACTCGCCGGCAGGACACTGCCTGGAACGCCTGGAGCGCCTCCCACTGCAGACG
TCTGTCCGCCTCCAGCCGCTCTCCTCTGACGGGTCCTGCCTCAGTTGGCGGA**ATG**GCGGCCACGGGAGCCAATGC
AGAGAAAGCTGAAAGTCACAATGATTGCCCCGTCAGACTTTTAAATCCAAACATAGCAAAAATGAAAGAAGATAT
TCTCTATCATTTCAATCTCACCACTAGCAGACACAATTTCCCAGCCTTGTTTGGAGATGTGAAGTTTGTGTGTGT
TGGTGGAAGCCCCTCCCGGATGAAAGCCTTCATCAGGTGCGTTGGTGCAGAGCTGGGCCTTGACTGCCCAGGTAG
AGACTATCCCAACATCTGTGCGGGAACTGACCGCTATGCCATGTATAAAGTAGGACCGGTGCTGTCTGTCAGTCA
TGGTATGGGCATTCCTTCTATCTCAATCATGTTGCATGAGCTCATAAAGCTGCTGTACTATGCCCGGTGCTCCAA
CGTCACTATCATCCGCATTGGCACTTCTGGTGGGATAGGTCTGGAGCCCGGCACTGTGGTCATAACAGAGCAGGC
AGTGGATACCTGCTTCAAGGCAGAGTTTGAGCAGATTGTCCTGGGGAAGCGGGTCATCCGGAAAACGGACCTTAA
CAAGAAGCTGGTGCAGGAGCTGTTGCTGTGTTCTGCAGAGCTGAGCGAGTTCACCACAGTGGTGGGGAACACCAT
GTGCACCTTGGACTTCTATGAAGGGCAAGGCCGTCTGGATGGGGCTCTCTGCTCCTACACGGAGAAGGACAAGCA
GGCGTATCTGGAGGCAGCCTATGCAGCCGGCGTCCGCAATATCGAGATGGAGTCCTCGGTGTTTGCCGCCATGTG
CAGCGCCTGCGGCCTCCAAGCGGCCGTGGTGTGTGTCACCCTCCTGAACCGCCTGGAAGGGGACCAGATCAGCAG
CCCTCGCAATGTGCTCAGCGAGTACCAGCAGAGGCCGCAGCGGCTGGTGAGCTACTTCATCAAGAAGAAACTGAG
CAAGGCC**TGA**GCGCTGCCCTGCACCTCCGCAGACCTGCTGTGATGACTTGCCATTAAAAGCATTGTCCAAACCC

FIGURE 296

MAATGANAEKAESHNDCPVRLLNPNIAKMKEDILYHFNLTTSRHNFPALFGDVKFVCVGGSPSRMKAFIRCVGAE
LGLDCPGRDYPNICAGTDRYAMYKVGPVLSVSHGMGIPSISIMLHELIKLLYYARCSNVTIIRIGTSGGIGLEPG
TVVITEQAVDTCFKAEFEQIVLGKRVIRKTDLNKKLVQELLLCSAELSEFTTVVGNTMCTLDFYEGQGRLDGALC
SYTEKDKQAYLEAAYAAGVRNIEMESSVFAAMCSACGLQAAVVCVTLLNRLEGDQISSPRNVLSEYQQRPQRLVS
YFIKKKLSKA

FIGURE 297

GGCACGAGGGCGCGCAAGGCACCGGTGGCAGCGGCGACGGCAGCTGCGACAGCAACCCCTGCTGGGCCGAAACTG
GGCAGAGCGGAGCAGACGTCTGAAGCAGCGCGAGTGAGGCGCGAGGGTAGCGCCCGCGCCCGGGAAGACCCCTCG
GCGCGAACCGGCAGCCCAGCCCCGGGTCCCGGTTCCCAAGGCCCCGCCTCTAGGGCCTGGGGACTAATCGGATTG
AGAGCGCGCCGGCCCGGGCCGCGAACTCGCCAATTGCGGAGGGCGGTGGCCACCGCCCAATCCGGAGCAGACAGG
TGCGAGGTCCGGAAGGCGGAGGCCAATCGGCGGCGGTTGCGACCTGCTGGGGCAGGTCTCGGCCAATAAGGAGGC
TCGAGTGACATCTTCGCGCACCAATCGGGAGTGAGGGAGCATTCGTGCCCGCTCGCCCTTCCGGCCAGACCTCTA
TTTACCAGGGGCGTGCAGCCCGCTTGCCAATCAGAGCGCGGCTGAGCGGCCCCGCAGCCAACCCCCGAGGAGCGG
CCGGCTGGCGTCCGCCGCGCCCAGGAGTTGGGG**ATG**TCCTACAAACCCATCGCCCCTGCTCCCAGCAGCACCCCT
GGCTCCAGCACCCCTGGGCCGGGCACCCCGGTCCCTACAGGAAGCGTCCCGTCGCCGTCGGGCTCAGTGCCAGGA
GCCGGCGCTCCTTTCAGACCGCTGTTTAACGACTTTGGACCGCCTTCCATGGGCTACGTGCAGGCGATGAAGCCA
CCCGGCGCCCAGGGCTCCCAGAGCACCTACACGGACCTGCTGTCAGTCATAGAGGAGATGGGCAAAGAGATCCGG
CCTACCTATGCTGGCAGCAAGAGCGCCATGGAGCGCCTGAAGAGAGGTATCATCCATGCCCGGGCCCTAGTCAGA
GAGTGCCTGGCAGAGACAGAGCGGAACGCCCGCACG**TAA**CAGGAAGCGCCTCGGCCTCAGCGTCTGGACCTATCC
GGCCACTGCAGAGCACCCGCTTCTCCCTGGCCTTCATCCCGAGTTGCACTAACCATCCTGGGCTTCCTGTCCTGT
GTCCCTTGGTGGGTCCCCTCCAGGAACCAAGGAGTGGCCCTCCAGGTGGCAGCACTAAGGACACCCCCCCACAAC
AAGAGTTAGCAGCGAGGTCCCCATGAGTCCCACCCATGACCTGCCGACAGTGTTGCCCACCGGAACTTTTGTGGC
CCCTACCGCTCAGCCCTTCCCAGCACTTCTCCCACTTTGTCCCGAGCCTCCTTCTCCCCCAGCAGGGGCACAGGC
CTGGCACCTCCCTGCCTTGTGTCCTGAGCCATAGTGACTCTTTTATCTGTGTGTCTTTTGCTAAATATGCCCTTT
TTATATTAATAAAAGATGATTTGGAGTTGTGCTCTCAAAAAAAAAAAAAAAAAAAAA

FIGURE 298

MSYKPIAPAPSSTPGSSTPGPGTPVPTGSVPSPSGSVPGAGAPFRPLFNDFGPPSMGYVQAMKPPGAQGSQSTYT
DLLSVIEEMGKEIRPTYAGSKSAMERLKRGIIHARALVRECLAETERNART

FIGURE 299

ATGGCGACTGCGACCCCCGTGCCGCCGCGGATGGGCAGCCGCGCTGGCGGCCCCACCACGCCGCTGAGCCCCACG
CGCCTGTCGCGGCTCCAGGAGAAGGAGGAGCTGCGCGAGCTCAATGACCGGCTGGCGGTGTACATCGACAAGGTG
CGCAGCCTGGAGACGGAGAACAGCGCGCTGCAGCTGCAGGTGACGGAGCGCGAGGAGGTGCGCGGCCGTGAGCTC
ACCGGCCTCAAGGCGCTCTACGAGACCGAGCTGGCCGACGCGCGACGCGCGCTCGACGACACGGCCCGCGAGCGC
GCCAAGCTGCAGATCGAGCTGGGCAAGTGCAAGGCGGAACACGACCAGCTGCTCCTCAACTATGCTAAGAAGGAA
TCTGATCTTAATGGCGCCCAGATCAAGCTTCGAGAATATGAAGCAGCACTGAATTCGAAAGATGCAGCTCTTGCT
ACTGCACTTGGTGACAAAAAAGTTTAGAGGGAGATTTGGAGGATCTGAAGGATCAGATTGCCCAGTTGGAAGCC
TCCTTAGCTGCAGCCAAAAAACAGTTAGCAGATGAAACTTTACTTAAAGTAGATTTGGAGAATCGTTGTCAGAGC
CTTACTGAGGACTTGGAGTTTCGCAAAAGCATGTATGAAGAGGAGATTAACGAGACCAGAAGGAAGCATGAAACG
CGCTTGGTAGAGGTGGATTCTGGGCGTCAAATTGAGTATGAGTACAAGCTGGCGCAAGCCCTTCATGAGATGAGA
GAGCAACATGATGCCCAAGTGAGGCTGTATAAGGAGGAGCTGGAGCAGACTTACCATGCCAAACTTGAGAATGCC
AGACTGTCATCAGAGATGAATACTTCTACTGTCAACAGTGCCAGGGAAGAACTGATGGAAAGCCGCATGAGAATT
GAGAGCCTTTCATCCCAGCTTTCTAATCTACAGAAAGAGTCTAGAGCATGTTTGGAAAGGATTCAAGAATTAGAG
GACTTGCTTGCTAAAGAAAAAGACAACTCTCGTCGCATGCTGACAGACAAAGAGAGAGAGATGGCGGAAATAAGG
GATCAAATGCAGCAACAGCTGAATGACTATGAACAGCTTCTTGATGTAAAGTTAGCCCTGGACATGGAAATCAGT
GCTTACAGGAAACTCTTAGAAGGCGAAGAAGAGAGGTTGAAGCTGTCTCCAAGCCCTTCTTCCCGTGTGACAGTA
TCCCGAGCATCCTCAAGTCGTAGTGTACGTACAACTAGAGGAAAGCGGAAGAGGGTTGATGTGGAAGAATCAGAG
GCGAGTAGTAGTGTTAGCATCTCTCATTCCGCCTCAGCCACTGGAAATGTTTGCATCGAAGAAATTGATGTTGAT
GGGAAATTTATCCGCTTGAAGAACACTTCTGAACAGGATCAACCAATGGGAGGCTGGGAGATGATCAGAAAAATT
GGAGACACATCAGTCAGTTATAAATATACCTCAAGATATGTGCTGAAGGCAGGCCAGACTGTTACAATTTGGGCT
GCAAACGCTGGTGTCACAGCCAGCCCCCCAACTGACCTCATCTGGAAGAACCAGAACTCGTGGGGCACTGGCGAA
GATGTGAAGGTTATATTGAAAAATTCTCAGGGAGAGGAGGTTGCTCAAAGAAGTACAGTCTTTAAAACAACCATA
CCTGAAGAAGAGGAGGAGGAGGAAGAAGCAGCTGGAGTGGTTGTTGAGGAAGAACTTTTCCACCAGCAGGGAACC
CCAAGAGCATCCAATAGAAGCTGTGCAATTATG**TAA**AATTTTCAACTGTCTTCCTCAAAATAAAGAAGTATGGTA
ATCTTTACCTGTATACAGTGCAGAGCCTTCTCAGAAGCACAGAATATTTTTATATTTCCTTTATGTGAATTTTTA
AGCTGCAAATCTGATGGCCTTAATTTCCTTTTTGACACTGAAAGTTTTGTAAAAGAAATCATGTCCATACACTTT
GTTGCAAGATGTGAATTATTGACACTGAACTTAATAACTGTGTACTGTTCGGAAGGGGTTCCTCAAATTTTTTGA
CTTTTTTTGTATGTGTGTTTTTTCTTTTTTTTTAAGTTCTTATGAGGAGGGGAGGGTAAATAAACCACTGTGCGT
CTTGGTGTAATTTGAAGATTGCCCCATCTAGACTAGCAATCTCTTCATTATTCTCTGCTATATATAAACGGTGC
TGTGAGGGAGGGGAAAAGCATTTTTCAATATATTGAACTTTTGTACTGAATTTTTTTGTAATAAGCAATCAAGGT
TATAATTTTTTTTAAAATAGAAATTTTGTAAGAAGGCAATATTAACCTAATCACCATGTAAGCACTCTGGATGAT
GGATTCCACAAAACTTGGTTTTATGGTTACTTCTTCTCTTAGATTCTTAATTCATGAGGAGGGTGGGGGAGGGAG
GTGGAGGGAGGGAAGGGTTTCTCTATTAAAATGCATTCGTTGTGTTTTTTAAGATAGTGTAACTTGCTTAAATTT
CTTATGTGACATTAACAAATAAAAAAGCTCTTTT

FIGURE 300

MATATPVPPRMGSRAGGPTTPLSPTRLSRLQEKEELRELNDRLAVYIDKVRSLETENSALQLQVTEREEVRGREL
TGLKALYETELADARRALDDTARERAKLQIELGKCKAEHDQLLLNYAKKESDLNGAQIKLREYEAALNSKDAALA
TALGDKKSLEGDLEDLKDQIAQLEASLAAAKKQLADETLLKVDLENRCQSLTEDLEFRKSMYEEEINETRRKHET
RLVEVDSGRQIEYEYKLAQALHEMREQHDAQVRLYKEELEQTYHAKLENARLSSEMNTSTVNSAREELMESRMRI
ESLSSQLSNLQKESRACLERIQELEDLLAKEKDNSRRMLTDKEREMAEIRDQMQQQLNDYEQLLDVKLALDMEIS
AYRKLLEGEEERLKLSPSPSSRVTVSRASSSRSVRTTRGKRKRVDVEESEASSSVSISHSASATGNVCIEEIDVD
GKFIRLKNTSEQDQPMGGWEMIRKIGDTSVSYKYTSRYVLKAGQTVTIWAANAGVTASPPTDLIWKNQNSWGTGE
DVKVILKNSQGEEVAQRSTVFKTTIPEEEEEEEEAAGVVVEEELFHQQGTPRASNRSCAIM

FIGURE 301A

ATCAAATGTGGGGTTTGTTACATTCCGCTGCCGCCGCGGACAGTTCTTAAAGGGCCAGCCGCCGGCTGCCGCGCA
GACCCAGCTGCGTCCTGCGCCGCCTCCCGCTCCCTGAGGGCCTGGGCCGAGAGAGACTGATCGCGCGTGGGCCTC
GCGAGGCAGACGCCGTCGGGCGGACAACAAAGAGAGAGGCCCCGGAAGGAGCCGGGCTGCCCCCGGACCCGGGGG
TGGGGAGGGGAGCACATTGTTCCGCAGGGCGGGAGCTCTTAAAGGATCCAGACAGGCACCCCCCCCCTCCCCCGC
CCCCTGCCCAGTTTGGCCGTCCTAGATCGGGAACAAAGGAGTCAACGTGTGGCCGGGCGGCCAAAGGGTTGTGAG
TCCCGGCCCAGCCCCTCCACCCCCCTGCCCCCCCG**ATG**CGACCATGGGCTCTGGCAGTGACTAGGTGGCCACCCT
CCGCCCCCGTGGGCCAGCGGCGATTCTCTGCGGGACCTGGCAGCACCCCGGGCCAGCTCTGGGGAAGCCCTGGCC
TCGAGGGCCCCCTGGCCAGCCCGCCTGCCCGGGATGAGCGCTTACCCTCCCAGCAGCCGCCGTCCCGACCTCCAC
ACCTCCCCGTAGAGGAGCGCCGAGCCTCGGCTCCTGCCGGCGGGAGCCCCCGAATGCTGCACCCAGCCACCCAGC
AGAGCCCGTTCATGGTTGATCTCCACGAGCAGGTGCACCAGGGACCTGTCCCTCTGTCCTACACGGTCACCACAG
TGACGACCCAAGGCTTCCCCTTGCCTACAGGCCAGCACATCCCTGGCTGCAGTGCCCAGCAGCTCCCAGCATGCT
CCGTGATGTTCAGTGGGCAGCATTACCCCCTCTGCTGCCTCCCGCCCCCGCTTATCCAGGCGTGCACCATGCAGC
AGCTGCCTGTGCCCTATCAGGCCTACCCCCACCTCATCTCCAGTGACCACTACATCCTGCACCCCCCACCACCGG
CCCCACCCCCCAGCCCACCCACATGGCGCCCCTGGGGCAGTTTGTGTCTCTGCAGACCCAGCACCCTCGGATGC
CCCTCCAGCGGCTCGACAACGACGTGGACCTGCGTGGGGACCAGCCCTCCCTGGGCAGCTTCACCTACTCCACCT
CTGCGCCTGGCCCAGCCCTTTCCCCGTCGGTGCCCCTGCACTACCTGCCCCACGATCCGCTGCACCAGGAGCTGT
CCTTTGGTGTGCCATATTCTCACATGATGCCACGGAGACTGAGCACCCAGAGATACCGCCTGCAGCAGCCACTGC
CCCCGCCGCCCCCACCCCCACCCCCACCACCCTACTACCCCAGCTTCCTGCCCTACTTCCTCTCGATGCTGCCAA
TGTCACCAACAGCAATGGGGCCCACCATCAGCCTGGACCTGGACGTGGATGATGTGGAGATGGAGAACTATGAGG
CCCTCCTGAACCTGGCCGAGCGGCTGGGAGATGCCAAGCCCCGGGGTCTCACCAAAGCAGACATAGAGCAGCTCC
CGTCGTACCGCTTTAACCCGGACAGCCATCAGTCGGAGCAGACGCTGTGTGTGGTCTGCTTCAGTGACTTCGAGG
CGCGGCAGCTGCTCCGAGTCCTCCCCTGCAACCATGAGTTCCACACCAAGTGTGTTGACAAGTGGTTGAAGGCCA
ACCGGACGTGTCCCATCTGCCGGGCCGACGCCTCCGAGGTGCCCAGGGAGGCTGAG**TGA**GGCCACGCAGCCGCCT
GCCCGGGAGAACCCTGCCTGAAGCTCTGGAAACTTGTGGGTGGGGCCCAGGGAGGATGGGGAGGGAGTGGCCCAG
GCCTGCCCCTTCGCTCCTGCCTGCATTTCCAGAGCTGGTGCCAGGGTCAGCCCAGCGAGGAGTCCCTGCAATAAG
CCCCTGCATTTGCCAAGCTCCAAAGACTCCCTCCCTAGTCTGCCTGCCCGCCCGCCCGCCACGGAGCTGCCTGAG
TGTCCCTGATCGGGTCTCCCTCCTGTGCACCCTCAGGTCCCTCCTTTTCCTGCTGGCACTGAGTGCCAGGGGTCC
GCTCCCTCAGTGGGGCCGGTGGAGATCCTTGGCCCCAGGATGGGCAGACAGAGCACCATCCTGGGTCAGAAGGTC
TCATGCTCTGAAATGGCGTGCCCTCTGCCCAGGTGGCACTGCCAGGTGCGTAGACAGACGGTGTCACGAGCCATT
TCCTGAGCCCCAGGGCTGAATCCCCCCTCCTTGACCCCGAACAGTGAACTCAGGCAGCTGGCTCTGTGTTGGCTG
CTGTGAGGGCTGAGTCTGGTTCCCTAGGGGACCCTCATCCCAGGAACAACATTCCAGCCCCACCCTCAGGCTGGA
GGGCGTCCCAGCCTAATCCCGAGCTGGGGCACACGTATCCTGAGGGGCTTGGGCCATACGGGGAGAGGGAGCCCT
GTGTTCCCGGTGGTTGTCCCTCCCAGGGATGCAGCCAGACCCGTGCCCAATCTCCTCTCCCTCTGTTGTTTGCA
TGAACGTGAGGAGCAGCAGTTTTTGTTCATTCATTTGGCCCAAAATCACGTGTAGGATTTGGGGATGTGGATATT
TAAGACAATTTCTTTTTTCTTTTGGTTTAATAGGGGCGGGTATAGGGACCAACTGGGACCGAGTGCCCAGGGGGC
CGAGCACGGTCATGCTGGCCGGCCTGCATGCATGCGTGTGCCGGGCTGGGCTGGGCGGCCGGCGGTCGTGGGGCA
GGGTTGGGGGTCTGTGCTCAGCTGATAACTGCCATGCACTGTACTGCACACGTCCCTAGAGCCTACCGGGACCCG
ACGCTTTTCAGGGCATTTCTCCCTCCAGCCAGGGCCCAACTCCCACCTGCCTGGGCGAATCTCCTCCAAGGAAGT
CCCAGGAGGATGGGGACCAGGAAGGCTGTGGACCCCCATCTCCAGGGGGCCTTCCCAGCCTGATCCCTGTCCTCC
AAGTTCTGGAGGAGGCCGCTGTAGGGTCTGGCTGAGCTTCCCACCCACTTTCCCTGGTCCCAATCCTTTCTTGTC
CTATACCCAGCTGGGGTTGCTGCCCTGAACGAACTGCGTGTGGGCCGGCACATCCTAGCAGGCAGCCCCTGGCG
CCTGCTGCCTCAGGGATGCTCCAACCACCCTCGTTCTCCTCGCAGTGGCCCTGGCTCCCACCTCCCGCCCCAGCC
TGCCGTGGGGCCCGTCAGCCTGGTCCCACCCCCATGGAGAACCCAAAGTCTTACTGTATATAACTCCAGGTGACG
TTTCTATATTTATAGCAGTGTTGAAAACCCACGTGTTTTACACAGAACCACCCTCTCCAACCCCTCCCTTCCCGA
CCCCAACAAAACGTTTTCAAACCCCTTACAGTTCCTGGGGCAGGCGGAAACAGGCTCACAGATTGTGTGTCGGCT
GCAGCAGTGATTCCAACAAGCAGCTATTGGGGGGGAAACACAGCATTTAAAAAGATCATCATTAAAAAACAAGAT
TTATACAACAATTACTTAGGATGTTTGTGATCCGCCGACCTTGCTATAGATGCCATGTTACCAATGATTTCCTGT
GGTGGGGGCTTGCCATTGTTTACTCTCTTATTTACCAACTTCTGGCCTAGGCATGACAGTGGGCACCTTCCCCCA

FIGURE 301B

GCCCTGGCTGGGCCCAGCGCCTGTGTTCTGTGTTAGAAAGGTTTTATATATATATAAAATTACATATATATGTAG
AAATATATGTAATTTTGGGGGCCCTGTTCCTTGCACATTTTACAGTTACCTCATTTTTCCCATGTATGTATTTGA
GAAAATGCTAATATATAGAGAAAAAAATGGTTCTTAAAGCTTAAATGTGTGGTTTTTTCCATTCCATGGGATTCA
CATTGGTTTGTAGCATTTAACATAACTAGTATGTTGTATTATATATATGTGTATACTGATTGAAATTTTTAACAG
ATTTGTACTTTTTTTAAAATGAAAGTTGCTAGTTCTGCTTGACCAAGTAGTGCAATCATTATTTTTTTTAATATT
GTTGCTGATTTCAGAGGGATATTCACTAATAAATGTATGATGTATACC

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FIGURE 302

MRPWALAVTRWPPSAPVGQRRFSAGPGSTPGQLWGSPGLEGPLASPPARDERLPSQQPPSRPPHLPVEERRASAP
AGGSPRMLHPATQQSPFMVDLHEQVHQGPVPLSYTVTTVTTQGFPLPTGQHIPGCSAQQLPACSVMFSGQHYPLC
CLPPPLIQACTMQQLPVPYQAYPHLISSDHYILHPPPPAPPPQPTHMAPLGQFVSLQTQHPRMPLQRLDNDVDLR
GDQPSLGSFTYSTSAPGPALSPSVPLHYLPHDPLHQELSFGVPYSHMMPRRLSTQRYRLQQPLPPPPPPPPPPY
YPSFLPYFLSMLPMSPTAMGPTISLDLDVDDVEMENYEALLNLAERLGDAKPRGLTKADIEQLPSYRFNPDSHQS
EQTLCVVCFSDFEARQLLRVLPCNHEFHTKCVDKWLKANRTCPICRADASEVPREAE

FIGURE 303

CGCACCATACCGGCGCGGGCACCTGGGGAGAAATGGATGGAGAAGGGACCTGGCTGGAAAGCTTTGCCCCGCTGC
TCTGCTCCGCCCATAAGAGGACCCCTGAAATGTCCCGTGCAGTTTGTTCAAGTCCCCTGTGTGATGAAATGTGCC
TCTCGCCTTACCCGTGTGAGAATACCTGTGGTGTGGCAGCGAGTATTTTGGTATTTGACCTGTCCAAAGACGACT
TGATACCTCTATAATGTAACAGAAAAGGTCAGAAAATATTAAGCAAGTAGAAGTGTGGAGCATATTAAGCAAG**AT**
GAACATCTCGGGAAGCAGCTGTGGAAGCCCTAACTCTGCAGATACATCTAGTGACTTTAAGGACCTTTGGACAAA
ACTAAAAGAATGTCATGATAGAGAAGTACAAGGTTTACAAGTAAAAGTAACCAAGCTAAAACAGGAACGAATCTT
AGATGCACAAAGACTAGAAGAATTCTTCACCAAAAATCAACAGCTGAGGGAACAGCAGAAAGTCCTTCATGAAAC
CATTAAAGTTTTAGAAGATCGGTTAAGAGCAGGCTTATGTGATCGCTGTGCAGTAACTGAAGAACATATGCGGAA
AAAACAGCAAGAGTTTGAAAATATCCGGCAGCAGAATCTTAAACTTATTACAGAACTTATGAATGAAAGGAATAC
TCTACAGGAAGAAAATAAAAAGCTTTCTGAACAACTCCAGCAGAAAATTGAGAATGATCAACAGCATCAAGCAGC
TGAGCTTGAATGTGAGGAAGACGTTATTCCAGATTCACCGATAACAGCCTTCTCATTTTCTGGCGTTAACCGGCT
ACGAAGAAAGGAGAACCCCCATGTCCGATACATAGAACAAACACATACTAAATTGGAGCACTCTGTGTGTGCAAA
TGAAATGAGAAAAGTTTCCAAGTCTTCAACTCATCCACAACATAATCCTAATGAAAATGAAATTCTAGTAGCTGA
CACTTATGACCAAAGTCAATCTCCAATGGCCAAAGCACATGGAACAAGCAGCTATACCCCTGATAAGTCATCTTT
TAATTTAGCTACAGTTGTTGCTGAAACACTTGGACTTGGTGTTCAAGAAGAATCTGAAACTCAAGGTCCCATGAG
CCCCCTTGGTGATGAGCTCTACCACTGTCTGGAAGGAAATCACAAGAAACAGCCTTTTGAGGAATCTACAAGAAA
TACTGAAGATAGTTTAAGATTTTCAGATTCTACTTCAAAGACTCCTCCTCAAGAAGAATTACCTACTCGAGTGTC
ATCTCCTGTATTTGGAGCTACCTCTAGTATCAAAAGTGGTTTAGATTTGAATACAAGTTTGTCCCCTTCTCTTTT
ACAGCCTGGGAAAAAAAAACATCTGAAAACACTCCCTTTTAGCAACACTTGTATATCTAGATTAGAAAAAACTAG
ATCAAAATCTGAAGATAGTGCCCTTTTCACACATCACAGTCTTGGGTCTGAAGTGAACAAGATCATTATCCAGTC
ATCTAATAAACAGATACTTATAAATAAAAATATAAGTGAATCCCTAGGTGAACAGAATAGGACTGAGTACGGTAA
AGATTCTAACACTGATAAACATTTGGAGCCCCTGAAATCATTGGGAGGCCGAACATCCAAAAGGAAGAAAACTGA
GGAAGAAAGTGAACATGAAGTAAGCTGCCCCCAAGCTTCTTTTGATAAAGAAAATGCTTTCCCTTTTCCAATGGA
TAATCAGTTTTCCATGAATGGAGACTGTGTGATGGATAAACCTCTGGATCTGTCTGATCGATTTTCAGCTATTCA
GCGTCAAGAGAAAAGCCAAGGAAGTGAGACTTCTAAAAACAAATTTAGGCAAGTGACTCTTTATGAGGCTTTGAA
GACCATTCCAAAGGGCTTTTCCTCAAGCCGTAAGGCCTCAGATGGCAACTGCACGTTGCCCAAAGATTCCCCAGG
GGAGCCCTGTTCACAGGAATGCATCATCCTTCAGCCCTTGAATAAATGCTCTCCAGACAATAAACCATCATTACA
AATAAAAGAAGAAAATGCTGTCTTTAAAATTCCTCTACGTCCACGTGAAAGTTTGGAGACTGAGAATGTTTTAGA
TGACATAAAGAGTGCTGGTTCTCATGAGCCAATAAAAATACAAACCAGGTCAGACCATGGAGGATGTGAACTTGC
ATCAGTTCTTCAGTTAAATCCATGTAGAACTGGTAAAATAAAGTCTCTACAAAACAACCAAGATGTATCCTTTGA
AAATATCCAGTGGAGTATAGATCCGGGAGCAGACCTTTCTCAGTATAAAATGGATGTTACTGTAATAGATACAAA
GGATGGCAGTCAGTCAAAATTAGGAGGAGAGACAGTGGACATGGACTGTACATTGGTTAGTGAAACCGTTCTCTT
AAAAATGAAGAAGCAAGAGCAGAAGGGAGAAAAAAGTTCAAATGAAGAAAGAAAAATGAATGATAGCTTGGAAGA
TATGTTTGATCGGACAACACATGAAGAGTATGAATCCTGTTTGGCAGACAGTTTCTCCCAAGCAGCAGATGAAGA
GGAGGAATTGTCTACTGCCACAAAGAAACTACACACTCATGGTGATAAACAAGACAAAGTCAAGCAGAAAGCGTT
TGTGGAGCCGTATTTTAAAGGTGATGAAAGAGAGACTAGCTTGCAAAATTTTCCTCATATTGAGGTGGTTCGGAA
AAAAGAGGAGAGAAGAAAACTGCTTGGGCACACGTGTAAGGAATGTGAAATTTATTATGCAGATATGCCAGCAGA
AGAAAGAGAAAAGAAATTGGCTTCCTGCTCAAGCACCGATTCCGCTACATTCCACCCAACACACCAGAGAATTT
TTGGGAAGTTGGTTTTCCTTCCACTCAGACTTGTATGGAAAGAGGTTATATTAAGGAAGATCTTGATCCTTGTCC
TCGTCCAAAAAGACGTCAGCCTTACAACGCAATATTTTCTCCAAAAGGCAAGGAGCAGAAGACA**TAG**ACGTTGAA
ACAGAAACAGAAGGATGAAGGACAGTTTTTTCCTTCTTAGTTATTTATAGTTAAAGTTGGTACTAAACATTGATT
TTTTTGATCTTCTGTAAATGGATTTATAAATCAGTTTTCTATTGAAAATGTTTGTGATATTTTGCTTTTGCACCT
TTAAAACAATAAGGCGCTTTCATTTTGCACTCTAACTTAAGAGTTTTTACTTTATGTAGTGATACCTAATACAAT
TTTGAAAATACAAAAAAAAAA

FIGURE 304

MNISGSSCGSPNSADTSSDFKDLWTKLKECHDREVQGLQVKVTKLKQERILDAQRLEEFFTKNQQLREQQKVLHE
TIKVLEDRLRAGLCDRCAVTEEHMRKKQQEFENIRQQNLKLITELMNERNTLQEENKKLSEQLQQKIENDQQHQA
AELECEEDVIPDSPITAFSFSGVNRLRRKENPHVRYIEQTHTKLEHSVCANEMRKVSKSSTHPQHNPNENEILVA
DTYDQSQSPMAKAHGTSSYTPDKSSFNLATVVAETLGLGVQEESETQGPMSPLGDELYHCLEGNHKKQPFEESTR
NTEDSLRFSDSTSKTPPQEELPTRVSSPVFGATSSIKSGLDLNTSLSPSLLQPGKKKHLKTLPFSNTCISRLEKT
RSKSEDSALFTHHSLGSEVNKIIIQSSNKQILINKNISESLGEQNRTEYGKDSNTDKHLEPLKSLGGRTSKRKKT
EEESEHEVSCPQASFDKENAFPFPMDNQFSMNGDCVMDKPLDLSDRFSAIQRQEKSQGSETSKNKFRQVTLYEAL
KTIPKGFSSSRKASDGNCTLPKDSPGEPCSQECIILQPLNKCSPDNKPSLQIKEENAVFKIPLRPRESLETENVL
DDIKSAGSHEPIKIQTRSDHGGCELASVLQLNPCRTGKIKSLQNNQDVSFENIQWSIDPGADLSQYKMDVTVIDT
KDGSQSKLGGETVDMDCTLVSETVLLKMKKQEQKGEKSSNEERKMNDSLEDMFDRTTHEEYESCLADSFSQAADE
EEELSTATKKLHTHGDKQDKVKQKAFVEPYFKGDERETSLQNFPHIEVVRKKEERRKLLGHTCKECEIYYADMPA
EEREKKLASCSRHRFRYIPPNTPENFWEVGFPSTQTCMERGYIKEDLDPCPRPKRRQPYNAIFSPKGKEQKT

FIGURE 305

GGGAAGTGCTGTTGGAGCCGCTGTGGTTGCTGTCCGCGGAGTGGAAGCGCGTGCTTTTGTTTGTGTCCCTGGCC**A**
TGGCGCTGCAGCTCTCCCGGGAGCAGGGAATCACCCTGCGCGGGAGCGCCGAAATCGTGGCCGAGTTCTTCTCAT
TCGGCATCAACAGCATTTTATATCAGCGTGGCATATATCCATCTGAAACCTTTACTCGAGTGCAGAAATACGGAC
TCACCTTGCTTGTAACTACTGATCTTGAGCTCATAAAATACCTAAATAATGTGGTGGAACAACTGAAAGATTGGT
TATACAAGTGTTCAGTTCAGAAACTGGTTGTAGTTATCTCAAATATTGAAAGTGGTGAGGTCCTGGAAAGATGGC
AGTTTGATATTGAGTGTGACAAGACTGCAAAAGATGACAGTGCACCCAGAGAAAAGTCTCAGAAAGCTATCCAGG
ATGAAATCCGTTCAGTGATCAGACAGATCACAGCTACGGTGACATTTCTGCCACTGTTGGAAGTTTCTTGTTCAT
TTGATCTGCTGATTTATACAGACAAAGATTTGGTTGTACCTGAAAAATGGGAAGAGTCGGGACCACAGTTTATTA
CCAATTCTGAGGAAGTCCGCCTTCGTTCATTTACTACTACAATCCACAAAGTAAATAGCATGGTGGCCTACAAAA
TTCCTGTCAATGAC**TGA**GGATGACATGAGGAAAATAATGTAATTGTAATTTTGAAATGTGGTTTTCCTGAAATCA
GGTCATCTATAGTTGATATGTTTTATTTCATTGGTTAATTTTTACATGGAGAAAACCAAAATGATACTTACTGAA
CTGTGTGTAATTGTTCCTTTATTTTTTTGGTACCTATTTGACTTACCATGGAGTTAACATCATGAATTTATTGCA
CATTGTTCAAAAGGAACCAGGAGGTTTTTTTGTCAACATTGTGATGTATATTCCTTTGAAGATAGTAACTGTAGA
TGGAAAAACTTGTGCTATAAAGCTAGATGCTTTCCTAAATCAGATGTTTGGTCAAGTAGTTTGACTCAGTATAG
GTAGGGAGATATTTAAGTATAAAATACAACAAAGGAAGTCTAAATATTCAGAATCTTTGTTAAGGTCCTGAAAGT
AACTCATAATCTATAAACAATGAAATATTGCTGTATAGCTCCTTTTGACCTTCATTTCATGTATAGTTTTCCCTA
TTGAATCAGTTTCCAATTATTTGACTTTAATTTATGTAACTTGAACCTATGAAGCAATGGATATTTGTACTGTTT
AATGTTCTGTGATACAGAACTCTTAAAAATGTTTTTTCATGTGTTTTATAAAATCAAGTTTTAAGTGAAAGTGAG
GAAATAAAGTTAAGTTTGTTTTAAAAAAAAAAAAAAAAAA

FIGURE 306

MALQLSREQGITLRGSAEIVAEFFSFGINSILYQRGIYPSETFTRVQKYGLTLLVTTDLELIKYLNNVVEQLKDW
LYKCSVQKLVVVISNIESGEVLERWQFDIECDKTAKDDSAPREKSQKAIQDEIRSVIRQITATVTFLPLLEVSCS
FDLLIYTDKDLVVPEKWEESGPQFITNSEEVRLRSFTTTIHKVNSMVAYKIPVND

FIGURE 307

AGCCGCGGCCTCAACTAAAAGTGGCCATTGACCTTTCAAGCTTTCGAGCAGTGATGCAATAGAATAGTATTTCAA
AGAAAAATGCTTATCGAAATTTTGGATCCGGTTTTCCCGTGATTGTTAAGGGTTTCTTTTAAAAAGTAGGTCACA
TTTCAAGTAGGTCATATTTCGGGGGCGGGTGCGCAGACAAGGAGATGAGTTTCCACTAAGGCCAGGGGGCCTCCA
ACGGGGTTGGAGGTGAGAATCCCAGGTAGGGTAGAGGTGCCGAGATCCTTCCGAATCCCAGCCCTGGGGCGTCAG
CCCTGCAGGGAATGGCAGAGACACTCTCCGGACTGAGGGAACCGAGGCCAGTCACCAAGCCCCTTCCGGGCGCGC
AGGCGATCAGTGGGTGACCGCGGCTGCGAGGGACTTTGTCATCCGTCCTCCAGGATCTGGGGAGAAAGAGCCCCA
TCCCTTCTCTCTCTGCCACCATTTCGGACACCCCGCAGGGACTCGTTTTGGGATTCGCACTGACTTCAAGGAAGG
ACGCGAACCCTTCTCTGACCCCAGCTCGGGCGGCCACCTGTCTTTGCCGCGGTGACCCTTCTCTC**ATG**ACCCTGC
GGTGCCTTGAGCCCTCCGGGAATGGCGGGGAAGGGACGCGGAGCCAGTGGGGGACCGCGGGGTCGGCGGAGGAGC
CATCCCCGCAGGCGGCGCGTCTGGCGAAGGCCCTGCGGGAGCTCGGTCAGACAGGATGGTACTGGGGAAGTATGA
CTGTTAATGAAGCCAAAGAGAAATTAAAAGAGGCACCAGAAGGAACTTTCTTGATTAGAGATAGCTCGCATTCAG
ACTACCTACTAACAATATCTGTTAAAACATCAGCTGGACCAACTAATCTTCGAATCGAATACCAAGACGGAAAAT
TCAGATTGGACTCTATCATATGTGTCAAATCCAAGCTTAAACAATTTGACAGTGTGGTTCATCTGATCGACTACT
ATGTTCAGATGTGCAAGGATAAGCGGACAGGTCCAGAAGCCCCCCGGAACGGCACTGTTCACCTTTATCTGACCA
AACCGCTCTACACGTCAGCACCATCTCTGCAGCATCTCTGTAGGCTCACCATTAACAAATGTACCGGTGCCATCT
GGGGACTGCCTTTACCAACAAGACTAAAAGATTACTTGGAAGAATATAAATTCCAGGTA**TAA**ATGTTTCTCTTTT
TTTAAACATGTCTCACATAGAGTATCTCCGAATGCAGCTATGTAAAAGAGAACCAAAACTTGAGTGCTCTGGATA
ACTATATGGAATGCTTTCTAAGAACAGCTGAAGCTAATCTAATTTAAATTTAACAGCTTGAAGAGGTAGCTAGGT
GTTTAAAGTTCCTCCAGATACTTTTACCTGAGTGATGCTTCCCTTCCTAAGGCTGACCAAGACCTGTTGATCCTT
TTAGATTAAAAATAAAATGTCGCATGTAAAGGCTGAAGTCGCGTTTTATCAGAATGCCTTGCCTTCTTAGGTTCT
TTTCCATTATGTCAAAGGTCCAGGCTCCAGTAGGAGAGAAAGAACTCCTCATAGGAATACTGAAGAAGTGGGAAG
GAACCAAGCTGACACAGGCCTCACTGCAATTTGATATGCCTGCTGATCAGAGTCTCTTGGGCATTTATATTTTG
CATTCTGATGTACCTAGGAGTTTTGTTAAACAGATGATGTATGTGAGTATTTATCCCATTTATGCAATTAACCA
AATCAACCAAAAAAAGTGACCATGAAGTCCTGTATTTGTCTTTTTACTACATGTAGGAACTCTCATGTGAATGAG
TACTGTAGTAATCCATTCTATGGGAGCCTTATTTCAGAAATATTTCAAACTGGTGCAAATGGAAAAGACTTTCTC
TTTTCCTTTAAAGCTAAAGACAAGAATATCATGCTATACAGGTGCAACTCAATCCCCGTTAATAAAAACCAATGT
AGGTATAGGCATTCTACCCTTTGAAATAGCTGTGTCCCAACCTGTTGCCATTGATTTTTTGGAAATGGCTTTAGA
AATATCCAAGTTGTCCTTGAATTGTCTAACCATGGACATAAACAGTTGTCTCCCTTCTACTGTGTAGAATACTTT
GACTTAATTTTCTTCCAGATACAGGGGGATACCTGCCTGTTTTTCAAAGTGTTTATTTACTGCTGTTACTATTTG
ATTAGAATGTATTAAATAAAAAAAACCTGATTTCT

FIGURE 308

MTLRCLEPSGNGGEGTRSQWGTAGSAEEPSPQAARLAKALRELGQTGWYWGSMTVNEAKEKLKEAPEGTFLIRDS
SHSDYLLTISVKTSAGPTNLRIEYQDGKFRLDSIICVKSKLKQFDSVVHLIDYYVQMCKDKRTGPEAPRNGTVHL
YLTKPLYTSAPSLQHLCRLTINKCTGAIWGLPLPTRLKDYLEEYKFQV

FIGURE 309

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AGCCGCGGCCTCAACTAAAAGTGGCCATTGACCTTTCAAGCTTTCGAGCAGTGATGCAATAGAATAGTATTTCAA
AGAAAAATGCTTATCGAAATTTTGGATCCGGTTTTCCCGTGATTGTTAAGGGTTTCTTTTAAAAAGTAGGTCACA
TTTCAAGTAGGTCATATTTCGGGGGCGGGTGCGCAGACAAGGAGATGAGTTTCCACTAAGGCCAGGGGGCCTCCA
ACGGGGTTGGAGGTGAGAATCCCAGGTAGGGTAGAGGTGCCGAGATCCTTCCGAATCCCAGCCCTGGGGCGTCAG
CCCTGCAGGGAATGGCAGAGACACTCTCCGGACTGAGGGAACCGAGGCCAGTCACCAAGCCCCTTCCGGGCGCGC
AGGCGATCAGTGGGTGACCGCGGCTGCGAGGGACTTTGTCATCCGTCCTCCAGGATCTGGGGAGAAAGAGCCCCA
TCCCTTCTCTCTCTGCCACCATTTCGGACACCCCGCAGGGACTCGTTTTGGGATTCGCACTGACTTCAAGGAAGG
ACGCGAACCCTTCTCTGACCCCAGCTCGGGCGGCCACCTGTCTTTGCCGCGGTGACCCTTCTCT**ATG**ACCCTGC
GGTGCCTTGAGCCCTCCGGGAATGGCGGGGAAGGGACGCGGAGCCAGTGGGGGACCGCGGGGTCGGCGGAGGAGC
CATCCCCGCAGGCGGCGCGTCTGGCGAAGGCCCTGCGGGAGCTCGGTCAGACAGGATGGTACTGGGGAAGTATGA
CTGTTAATGAAGCCAAAGAGAAATTAAAAGAGGCACCAGAAGGAACTTTCTTGATTAGAGATAGCTCGCATTCAG
ACTACCTACTAACAATATCTGTTAAAACATCAGCTGGACCAACTAATCTTCGAATCGAATACCAAGACGGAAAAT
TCAGATTGGACTCTATCATATGTGTCAAATCCAAGCTTAAACAATTTGACAGTGTGGTTCATCTGATCGACTACT
ATGTTCAGATGTGCAAGGATAAGCGGACAGGTCCAGAAGCCCCCCGGAACGGCACTGTTCACCTTTATCTGACCA
AACCGCTCTACACGTCAGCACCATCTCTGCAGCATCTCTGTAGGCTCACCATTAACAAATGTACCGGTGCCATCT
GGGGACTGCCTTTACCAACAAGACTAAAAGATTACTTGGAAGAATATAAATTCCAGGTA**TAA**ATGTTTCTCTTTT
TTTAAACATGTCTCACATAGAGTATCTCCGAATGCAGCTATGTAAAAGAGAACCAAAACTTGAGTGCTCTGGATA
ACTATATGGAATGCTTTCTAAGAACAGCTGAAGCTAATCTAATTTAAATTTAACAGCTTGAAGAGGTAGCTAGGT
GTTTAAAGTTCCTCCAGATACTTTTACCTGAGTGATGCTTCCCTTCCTAAGGCTGACCAAGACCTGTTGATCCTT
TTAGATTAAAAATAAAATGTCGCATGTAAAGGCTGAAGTCGCGTTTTATCAGAATGCCTTGCCTTCTTAGGTTCT
TTTCCATTATGTCAAAGGTCCAGGCTCCAGTAGGAGAGAAAGAACTCCTCATAGGAATACTGAAGAAGTGGGAAG
GAACCAAGCTGACACAGGCCTCACTGCAATTTGATATGCCTGCTGATCAGAGTCTCTTGGGCATTTATATTTTG
CATTCTGATGTACCTAGGAGTTTTGTTAAACAGATGATGTATGTGAGTATTTATCCCATTTTATGCAATTAACCA
AATCAACCAAAAAAAGTGACCATGAAGTCCTGTATTTGTCTTTTTACTACATGTAGGAACTCTCATGTGAATGAG
TACTGTAGTAATCCATTCTATGGGAGCCTTATTTCAGAAATATTTCAAACTGGTGCAAATGGAAAAGACTTTCTC
TTTTCCTTTAAAGCTAAAGACAAGAATATCATGCTATACAGGTGCAACTCAATCCCCGTTAATAAAAACCAATGT
AGGTATAGGCATTCTACCCTTTGAAATAGCTGTGTCCCAACCTGTTGCCATTGATTTTTTGGAAATGGCTTTAGA
AATATCCAAGTTGTCCTTGAATTGTCTAACCATGGACATAAACAGTTGTCTCCCTTCTACTGTGTAGAATACTTT
GACTTAATTTTCTTCCAGATACAGGGGGATACCTGCCTGTTTTTCAAAGTGTTTATTTACTGCTGTTACTATTTG
ATTAGAATGTATTAAATAAAAAAAACCTGATTTCT
```

FIGURE 310

MTLRCLEPSGNGGEGTRSQWGTAGSAEEPSPQAARLAKALRELGQTGWYWGSMTVNEAKEKLKEAPEGTFLIRDS
SHSDYLLTISVKTSAGPTNLRIEYQDGKFRLDSIICVKSKLKQFDSVVHLIDYYVQMCKDKRTGPEAPRNGTVHL
YLTKPLYTSAPSLQHLCRLTINKCTGAIWGLPLPTRLKDYLEEYKFQV

FIGURE 311

GGGTGAGCAAAGGGGCGGGTCCCTGGCTGCTGTGGCCTCCCCTGACCCCCTCCCCCGCTGCTGGGGTCCTCGGC
CAAGCCCCCTTCTCACTGGACTGAGAC**ATG**AGGCTGAGCTGGTTCCGGGTCCTGACAGTACTGTCCATCTGCCTG
AGCGCCGTGGCCACGGCCACGGGGGGCCGAGGGCAAAAGGAAGCTGCAGATCGGGGTCAAGAAGCGGGTGGACCAC
TGTCCCATCAAATCGCGCAAAGGGGATGTCCTGCACATGCACTACACGGGGAAGCTGGAAGATGGGACAGAGTTT
GACAGCAGCCTGCCCCAGAACCAGCCCTTTGTCTTCTCCCTTGGCACAGGCCAGGTCATCAAGGGCTGGGACCAG
GGGCTGCTGGGGATGTGTGAGGGGGAAAAGCGCAAGCTGGTGATCCCATCCGAGCTAGGGTATGGAGAGCGGGGA
GCTCCCCCAAAGATTCCAGGCGGTGCAACCCTGGTGTTCGAGGTGGAGCTGCTCAAAATAGAGCGACGAACTGAG
CTG**TAA**CCAGACTGGGGAGGGGCAGGGGGAGAGGCCCCCATCAGGGACCAGACTGTTCCAAAAAAAAAACAAAAA
ACAAAAACAAACAAAAAAACACTTAAAAGCCCAAGGAGTAAGCCTGTGTGTTTGTGGGCCCTGAGAGACTCAGAG
ACCTCAGCTCCAGCATACCCCACCACCTTCTCCTTTCCC

FIGURE 312

MRLSWFRVLTVLSICLSAVATATGAEGKRKLQIGVKKRVDHCPIKSRKGDVLHMHYTGKLEDGTEFDSSLPQNQP
FVFSLGTGQVIKGWDQGLLGMCEGEKRKLVIPSELGYGERGAPPKIPGGATLVFEVELLKIERRTEL

FIGURE 313

ACTCAGTGTTCGCGGGAGCCGCACCTACACCAGCCAACCCAGATCCCGAGGTCCGACAGCGCCCGGCCCAGATCC
CCACGCCTGCCAGGAGCAAGCCGAGAGCCAGCCGGCCGGCGCACTCCGACTCCGAGCAGTCTCTGTCCTTCGACC
CGAGCCCCGCGCCCTTTCCGGGACCCCTGCCCCGCGGGCAGCGCTGCCAACCTGCCGGCC**ATG**GAGACCCCGTCC
CAGCGGCGCGCCACCCGCAGCGGGGCGCAGGCCAGCTCCACTCCGCTGTCGCCCACCCGCATCACCCGGCTGCAG
GAGAAGGAGGACCTGCAGGAGCTCAATGATCGCTTGGCGGTCTACATCGACCGTGTGCGCTCGCTGGAAACGGAG
AACGCAGGGCTGCGCCTTCGCATCACCGAGTCTGAAGAGGTGGTCAGCCGCGAGGTGTCCGGCATCAAGGCCGCC
TACGAGGCCGAGCTCGGGGATGCCCGCAAGACCCTTGACTCAGTAGCCAAGGAGCGCGCCCGCCTGCAGCTGGAG
CTGAGCAAAGTGCGTGAGGAGTTTAAGGAGCTGAAAGCGCGCAATACCAAGAAGGAGGGTGACCTGATAGCTGCT
CAGGCTCGGCTGAAGGACCTGGAGGCTCTGCTGAACTCCAAGGAGGCCGCACTGAGCACTGCTCTCAGTGAGAAG
CGCACGCTGGAGGGCGAGCTGCATGATCTGCGGGGCCAGGTGGCCAAGCTTGAGGCAGCCCTAGGTGAGGCCAAG
AAGCAACTTCAGGATGAGATGCTGCGGCGGGTGGATGCTGAGAACAGGCTGCAGACCATGAAGGAGGAACTGGAC
TTCCAGAAGAACATCTACAGTGAGGAGCTGCGTGAGACCAAGCGCCGTCATGAGACCCGACTGGTGGAGATTGAC
AATGGGAAGCAGCGTGAGTTTGAGAGCCGGCTGGCGGATGCGCTGCAGGAACTGCGGGCCCAGCATGAGGACCAG
GTGGAGCAGTATAAGAAGGAGCTGGAGAAGACTTATTCTGCCAAGCTGGACAATGCCAGGCAGTCTGCTGAGAGG
AACAGCAACCTGGTGGGGGCTGCCCACGAGGAGCTGCAGCAGTCGCGCATCCGCATCGACAGCCTCTCTGCCCAG
CTCAGCCAGCTCCAGAAGCAGCTGGCAGCCAAGGAGGCGAAGCTTCGAGACCTGGAGGACTCACTGGCCCGTGAG
CGGGACACCAGCCGGCGGCTGCTGGCGGAAAAGGAGCGGGAGATGGCCGAGATGCGGGCAAGGATGCAGCAGCAG
CTGGACGAGTACCAGGAGCTTCTGGACATCAAGCTGGCCCTGGACATGGAGATCCACGCCTACCGCAAGCTCTTG
GAGGGCGAGGAGGAGAGGCTACGCCTGTCCCCCAGCCCTACCTCGCAGCGCAGCCGTGGCCGTGCTTCCTCTCAC
TCATCCCAGACACAGGGTGGGGGCAGCGTCACCAAAAAGCGCAAACTGGAGTCCACTGAGAGCCGCAGCAGCTTC
TCACAGCACGCACGCACTAGCGGGCGCGTGGCCGTGGAGGAGGTGGATGAGGAGGGCAAGTTTGTCCGGCTGCGC
AACAAGTCCAATGAGGACCAGTCCATGGGCAATTGGCAGATCAAGCGCCAGAATGGAGATGATCCCTTGCTGACT
TACCGGTTCCCACCAAAGTTCACCCTGAAGGCTGGGCAGGTGGTGACGATCTGGGCTGCAGGAGCTGGGGCCACC
CACAGCCCCCCTACCGACCTGGTGTGGAAGGCACAGAACACCTGGGGCTGCGGGAACAGCCTGCGTACGGCTCTC
ATCAACTCCACTGGGGAAGAAGTGGCCATGCGCAAGCTGGTGCGCTCAGTGACTGTGGTTGAGGACGACGAGGAT
GAGGATGGAGATGACCTGCTCCATCACCACCATGTGAGTGGTAGCCGCCGC**TGA**GGCCGAGCCTGCACTGGGGCC
ACCCAGCCAGGCCTGGGGGCAGCCTCTCCCCAGCCTCCCCGTGCCAAAAATCTTTTCATTAAAGAATGTTTGGAA
CTTT

FIGURE 314

METPSQRRATRSGAQASSTPLSPTRITRLQEKEDLQELNDRLAVYIDRVRSLETENAGLRLRITESEEVVSREVS
GIKAAYEAELGDARKTLDSVAKERARLQLELSKVREEFKELKARNTKKEGDLIAAQARLKDLEALLNSKEAALST
ALSEKRTLEGELHDLRGQVAKLEAALGEAKKQLQDEMLRRVDAENRLQTMKEELDFQKNIYSEELRETKRRHETR
LVEIDNGKQREFESRLADALQELRAQHEDQVEQYKKELEKTYSAKLDNARQSAERNSNLVGAAHEELQQSRIRID
SLSAQLSQLQKQLAAKEAKLRDLEDSLARERDTSRRLLAEKEREMAEMRARMQQQLDEYQELLDIKLALDMEIHA
YRKLLEGEEERLRLSPSPTSQRSRGRASSHSSQTQGGGSVTKKRKLESTESRSSFSQHARTSGRVAVEEVDEEGK
FVRLRNKSNEDQSMGNWQIKRQNGDDPLLTYRFPPKFTLKAGQVVTIWAAGAGATHSPPTDLVWKAQNTWGCGNS
LRTALINSTGEEVAMRKLVRSVTVVEDDEDEDGDDLLHHHHVSGSRR

FIGURE 315

CCAAGCCCATGAGGGCCGCGCGCCCGGCCGCCGGTGCTGACGAGACGGAGCTCCTGGCCCCCGAGGAGGAGCAGA
GGATCA**ATG**CGGTTCAAGAATCGATTCCAGCGGTTCATGAACCATCGAGCTCCAGCCAATGGCCGCTACAAGCCA
ACTTGCTATGAACATGCTGCTAACTGTTACACACACGCATTCCTCATTGTTCCGGCCATCGTGGGCAGTGCCCTC
CTCCATCGGCTGTCTGATGACTGCTGGGAAAAGATAACAGCATGGATTTATGGAATGGGACTCTGTGCCCTCTTC
ATCGCTTCTACAGTATTTCACATTGTATCATGGAAAAAGAGCCACTTAAGGACAGCGGAGCATTGTTTTCACATG
TGTGATAGAATGGTTATCTATTTCTTCATTGCTGCTTCTTATGCTCCATGGTTAAATCTTCGTGAACTTGGACCC
CTGGCATCTCATATGCGTTGGTTTATCTGGCTCATGGCAGCTGGAGGAACCATTTATGTATTTCTCTACCATGAA
AAATATAAGGTGGTTGAACTCTTTTTCTATCTCACAATGGGATTCTCTCCAGCCTTGGTGGTGACATCAATGAAC
AACACCGATGGACTTCAGGAACTTGCCTGTGGGGGCTTAATTTATTGCTTGGGAGTTGTGTTCTTCAAGAGTGAT
GGCATCATTCCATTTGCCCACGCCATCTGGCACCTGTTTGTGGCCACGGCAGCTGCAGTGCATTACTACGCCATT
TGGAAATACCTTTACCGAAGTCCTACGGACTTTATGCGGCATTA**TGA**CCAATCTGTACTAATTCTCCAAACCAG
TATTATTTCAATTATGGCACTTGGGAGTGGGGTGAGAGCTAAACATTGCACAGGGCAAAGAAAAAAAATAACTGC
ACTGACTTTATATCTTTTGAATATAATTACTGTGAAAGTATAAAGGCTGTGTTCTGGAATTTTCTGCCTCACAGC
AAATAAATAAGGTAGTGAATTAATTATTCATTCCATTCCACTATCATGAAGGACTCTGAATAGACTTGGCCAACT
GATGTTACAAACCAGACTTTTATATTTTAATTTTACAGATTTTACTACATGATTTTTCTAAATTACTATGTCAG
GTTGTAAAAGTCAGTGCAATAACAAACCTTCCTTTTTAAGAAGAAAATTGTTTCTATTACTTTCCCATTCACTAG
GTAAAGAATCATGGACAGAACTTACACTACTTTTTACCATGTTTCATCTTGGCATAACATGGTTCTTTTTTAAAT
AGAAACTTTAGTTTTTTGTAAATTTTTAAAAAAATATTTCATTGATATGCATCTCTGCAGGTCCTCATTCATGTT
GTAAATTTTTGGAGCAAGCAGTCAACATTCCACAAACGAACAAACATTATACCTCTTCTGATAGTTTTATTAAGC
ATGGAGAAATTGCCAATTTTTAAAAACTGCAGTTTTCCAAACTTTTCTGCCAACCTCTTACTCTGAATTCAGTGC
TGCTTTGGGACATATACTTGACCTAGCTTGGTTTACCAGTGATGGAAAGTATTTTGATATCATTAACTTTTTCA
AAAGATCCAACTTTTTCTCTATGCCTTTGCCACATTCTCTTCAGGGTCTCTTTCCACAGCGGATAAATGTTTTTT
CTGTATTATGACAGTATTGTTGTGATGGCCATCTGCTGGAAACTCCTGAAGAGCATTATGTATTACAGTGAGCAG
TTGTATTGCCTGTTTGGTGCCCAATGGTTAAGTCATTGTCACTTAGCTTTATATTGTCAGTTTGATATTTATTTT
AAATTGTGGAACTAGATGCATAAATTCACATTTCTGCCTTTCCTTTGCATCTTCTCATATATTGTGTTTTTTTTT
TTTTCCTAGAAAAAATATTTAAAGCATTGTTTGACAGGTAGAAACTCATGTATCTGTAGTCCATGAGTTATATC
CTGGCTCAGTGGAGTGATATTTATGTATTATTTTTACTTTTCTCTCAGTGTCTTATATTAAGATTAACATGTTGT
TAATAGTTGCTTTGTTGATTAATCTCTCTTGTTGGTGTTTAATAAATGAAATAGGCTTGCCTTTAGATCGGGTG
CTGATATTGCCTGTTCCTAGTAATGGGCTGATCAAATGATCAGTGGAATTCTTGGTTTGATGATAACCTTATTA
ATTGAAATTTTTTACTGATGTGGCTTTAAAAGAGGTTTATTTTGTATATGTTTAGAACTCTCTGATTTTGATGAA
TTATATGGGAGTGAGAAACAGAAGAAGTGGTATTTGCTGGCGAGTTAAATAGGCAAGGTACCCAGTGATAACACC
AACCAAACCACTCCTATCTGCATGATTCTGAACATCTGGATGCCTGTTGTTTTACTGTGTATATTTTATTTTTAA
TATATTAACTTTGTGGATTCATTTAAGGTCTACTCAAAAGTAACACTGTCCAAACCACTAATATGTATGTAAAAA
TTGTGCTGTATACTACAATAAAGTTGTTACTTGGATTTGTTCCAAAAAAAAAAAAAAA

FIGURE 316

MRFKNRFQRFMNHRAPANGRYKPTCYEHAANCYTHAFLIVPAIVGSALLHRLSDDCWEKITAWIYGMGLCALFIA
STVFHIVSWKKSHLRTAEHCFHMCDRMVIYFFIAASYAPWLNLRELGPLASHMRWFIWLMAAGGTIYVFLYHEKY
KVVELFFYLTMGFSPALVVTSMNNTDGLQELACGGLIYCLGVVFFKSDGIIPFAHAIWHLFVATAAAVHYYAIWK
YLYRSPTDFMRHL

FIGURE 317A

GGGGGAGGGAAACGGAGCAGTAACAAGTATCCCAGAGGGTGCTGCTGAGGCGACG**ATG**GCCGAGGGGCCCGAGGA
AGCCCGAGGCCACCCTCCCGGGCAGGACGATGGCGGGGGGGACCACGAGCCCGTCCCTTCCCTGAGAGGCCCTCC
TACCACCGCCGTCCCATGCCCCCGCGACGACCCCCAGGCCGAACCCCAGGCCCCGGGCCGGCCCACAGCCCCGGG
CCTCGCGGCTGCCGCCGCAGCCGACAAATTGGAGCCGCCGCGCGAGCTCAGGAAGCGCGGGGAGGCGGCCTCCGG
CTCCGGTGCAGAGCTGCAGGAGCAGGCGGGCTGCGAGGCGCCCGAAGCCGCGGCGCCACGAGAGAGACCAGCTCG
GCTGAGCGCCCGCGAGTACTCCCGGCAAGTGCACGAGTGGCTGTGGCAGTCCTACTGCGGCTACCTCACCTGGCA
CAGCGGCCTGGCCGCCTTCCCAGCCTACTGCAGCCCCCAGCCCTCCCCGCAAAGCTTCCCTTCGGGCGGCGCTGC
AGTCCCCCAGGCCGCGGCGCCGCCGCCCCCGCAGCTGGGCTATTACAACCCCTTCTACTTCCTGAGCCCCGGGGC
CGCGGGGCCTGACCCGCGGACAGCTGCCGGCATCAGCACCCCTGCTCCAGTCGCGGGCCTGGGACCCCGGGCTCC
TCACGTGCAGGCGTCGGTCCGGGCCACTCCAGTGACGAGGGTAGGATCCGCAGCCCCTTCGCGAAGCCCGAGCGA
GACCGGGCGACAGGCAGGCAGAGAATATGTTATTCCATCCTTGGCCCACAGATTTATGGCAGAGATGGTGGATTT
CTTTATTCTCTTCTTTATAAAAGCAACCATTGTCTTAAGCATTATGCACCTCAGTGGGATAAAGGATATCTCTAA
GTTTGCTATGCATTATATAATAGAAGAAATAGATGAAGACACATCAATGGAAGACTTGCAGAAAATGATGGTTGT
GGCACTTATATACAGATTATTAGTTTGTTTCTATGAGATAATTTGCATTTGGGGAGCAGGTGGAGCTACCCCAGG
GAAGTTCCTGCTGGGGCTTCGAGTTGTGACATGTGATACATCAGTGCTTATTGCACCAAGTCGGGTTTTAGTGAT
TCCTTCCTCAAATGTTAGCATTACAACGTCCACTATCCGAGCTTTGATCAAGAATTTTTCAATTGCTTCTTTTTT
CCCTGCTTTCATCACACTGCTGTTTTTTCAGCATAATCGAACAGCTTATGACATTGTAGCAGGAACCATTGTGGT
AAAAAGAAATGGGGTCAGA**TGA**TGCCCCCCAAAACCCTGATTTCCACACACTAAGACTAAATTATGTATCAAGGC
CATCAGTATCCCTGGGTTACACTAATTGATGATTTAGAAATTAAAGCAGTCACTCCAGTGTGATGCAGGTGACTA
CTCTGAAAGTATTGATTATACTTGAATGCCAAAGAACTTGTCCAGAAGAAAAACCTGTTAAATTCAAGTATTAAA
ATTTTTAGATCAAAAAGGCAAATGATTTTATAAACAATGGACAATATATACTTTCTTAAGATCTAAGGTACTTTC
TTAAGATCTAAGAATTTGCTGAAAGCATTTTCAGCTTTGAAATCTCCAAATGAAACTTTAAAATTTATTTTGGTT
TATCCCAAAATAATGGAAAATGTCCAGTTGTGTTTTGTAAACACCTATGTAACTCATCTTTTAGTTTACACTTCC
TGGGGAAATTGTCTTTGGTGTTTAGAGGAGGGAATGAGAACACAAATTGGATAATCCACTGTCTCCCATCCCAGG
AGGTGGTGAGTTGGCTACAAGAGAAAGGGACAAGTGAGGCAGGCCTAGCAGTTCCCTTACCTGAAGTTTTCAAAT
CCATACTGCAGTTCCCTCTCGTAATGATGTAACTTTACAACTATTCTTAATGCTTGAACATGTATTTAGGGGCAA
GTTTCTCATGATGATGAAAAGTATCAAGTCATATTGCTATGTTAATTGGTTTTTTTTTTAAAAGGTAAGTTAG
TGATTACTGTTAATGGTGGGGGAGTAAGTTTTCACTGTAAATTGAACTTATAATTTATGTGCAAGTGTTTTCAGT
GCCCTGAATCAAACTATAAATGTGGGGAGAAATCACCTCCATCAAACAGTTGCATATTTACTGTAAAAGTATTCC
CAGTATGTGTGCAGCATGAAGAAAGTATTAGTGCTTCTCAGTGTTCTCAGTGTAAATTCTATTTATATACAGCAT
ATTCACATACTACTTTCCTTATATTTTATATAGTTCTATGACTGTTGAAACATCAAGGAGTTAAAAAAATCTTAA
TATTTCATGATTAACTCTAAGTACTATTAATAGCTTGCGAAATATTAGCAATTTTCCCATTATGGACTATCTCTC
TAAAGCAAGAGAGACTAGCATTCCCAGACATCATTCTAGGGTCTTTAAGCTCATTTGGGTCTGCTAAAGTTTGG
GGGGAAATGTTACGCAAAGTGATACTGTGTATGTTGCCATTTTGCTTTATTCTTCTGTTGAAGCAAAATTGTGGG
GTTTTATTATGTGTGTGTGCTTTTCCTAGATGTCCCAGTTAGCTGTGCTGAGATATACCTGTACTATTTATGGTT
TAAGTTTTGATTCTTAGGTATTTTCTCCAGCTCTGACATTGTTTTCCAAAGACACACTAAACTGCATTGCACAGT
TCAAAATTTGATTACTTAAGGGATCAATCTAGGTGGTGTTCTTGGTCTTAAATTTAACAGCAAACACAGCACATA
TCTATTATCACTATATTAATTTTCAAAGGTTTTTCTGTGACGTTTAAAACTGTGACAACAGATATTCACATTTGA
TTATAGAAACTTAATGTCTATTAATAATTTTAGTACAAAATTTCATAAACCGTGTTTTTCAAAATAAGTTTATGT
CAAATCCAGCTTCCCAGAAACACTAATAATTAAGTACATCAATGTACTAAATAAATCATTCAGTTGCACCCATGG
GGAAGATTGTGTTACTGCCCTTCACAGTGAAAAAAAGAAAAATCTTTCATTTTTAAAATTAGGAGATGTTACGTA
ACTTGGCACTTTAGTAGTGTATACACTAGCATTAGTTTATACCACTTTTGCCGCTGGGGATTCAAGTTGAAAT
GTCCCTCAATCATATAGGTCTGGAATACATCTTTCATTCATAATTTCTGCTCAGATAATTGAATAGTTTGCCATC
GAGATTATTTTCATTTATACTATAAAACAAAAGCAAACTAGTCCAGTTTAATTTTTTGTACTTAGAATATTGCAC
ATTTTCTATATATGAGTTATTCAGATTAGTATCTATGTAGGTTCAGTCAGATCCAACCATGGATTCGAGGTATTA
TACTGTATAACCCTACAAAATACATAGAAGTATTATTTGCCTTCATAATAGAACCCAAGAGTCTGTTTCAATTTA
TGAATTCAGTATTTGCACCGAGATTTTGATTCCCAAAGTTTGGAAAAAAATGACAAAACAACGAGGGAAGAAGGA
ACCAGACCTTAGTGCCACATATTTTTCTCTTGGGGTTGTAAGGTAGTCTCCTGCTTTCCAGAACACTTTATTATA

FIGURE 317B

TTTCACTTATAGACCTGATTTTCTGTGTCAAAGTATAATTCTCATGCTGAAGCTGTAGCCTAAAAAGCCAAAAGA
AAGTTGTCTTCATTGTACAAACATATTCATCACTTTAACAATAAGGGAACAAAATTTAGTATTCAAGCTGAGTGA
GAATACTGGTTCAATGGACATGTCCCTAAGATAAACCAGAATTGGCAGTTAATTTAGGCGTCTAGAAAATCTCAG
TTCCCACCAGTAAAATTATCCTGAGTAGCTAATGCACCTTGAGAAAAATCTGGCATACTGAATAAGTAACATTAA
CTTGGGAGCCAAGAGCTGGGTAAGCCTTACCTTTAGACTACTCTGTGACTACAGAAATAAAGCCAGCACTTTTGG
AACTAATAAGCCTTCACTTGTCAGTATCATAAGAGTATTGCCCAACTGAACTTTGCTCCCACTGGTTTAATAGT
TACTTATTTCTGCCTAAGCACTCACCTTCCGATTTTACCCAAGTATATATATAGGATAGAAAAAAATGCATTATA
TTTGAGAGCTCACTTCGCCCGAATTACAAAATGAGTGTTTTTAGATTCAAGTGACGGTAAAAGGATTTGTTCCCT
TCAGTGACTTGAGTGTTTTAGTTATGCATAAGTATTTCTAGCAAAGGAAGGGTAGAAAGGAATTGAAAATTAATT
TACACTAGTTGCTACTTGGGAATAAAGGGCTTTTTGAGGGGGGTATGGATATTAAATGTTTTCGTTATATACTTA
TCCCTATTAAAACAGGCAGTTGTTTCTTTGAATATGCCTAAATAACAGTATTCTTAAAATCTGACAGACAAGTAA
CATGTCAATTACTTGATATTCCTTGTCTCCAGTACCACAGGCCACTCTTGACATCCCATGTTTGCCTGGATAAAG
TTCCTCATTTCAAACAGTATACATACTTCTTTGCAGTTCATTATAGTAAGGCTTAACCTGTAAACAGTATCTGAT
GGCCCACCTATAAATAAAATTCAGCATTCTATTTTTAATAATTTGTATGCCACCAATTTGTATTATTTGTCTCAA
TAAATACTTAGTCATCGATGCAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 318

MAEGPEEARGHPPGQDDGGGDHEPVPSLRGPPTTAVPCPRDDPQAEPQAPGRPTAPGLAAAAAADKLEPPRELRK
RGEAASGSGAELQEQAGCEAPEAAAPRERPARLSAREYSRQVHEWLWQSYCGYLTWHSGLAAFPAYCSPQPSPQS
FPSGGAAVPQAAAPPPPQLGYYNPFYFLSPGAAGPDPRTAAGISTPAPVAGLGPRAPHVQASVRATPVTRVGSAA
PSRSPSETGRQAGREYVIPSLAHRFMAEMVDFFILFFIKATIVLSIMHLSGIKDISKFAMHYIIEEIDEDTSMED
LQKMMVVALIYRLLVCFYEIICIWGAGGATPGKFLLGLRVVTCDTSVLIAPSRVLVIPSSNVSITTSTIRALIKN
FSIASFFPAFITLLFFQHNRTAYDIVAGTIVVKRNGVR

FIGURE 319A

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GGTAATGCTTAAACTTCCTGCCTCTTTTGCCTCTACAGGAAAGAAGAAAGAACACAAGAAAGTGAAGTCCACTAG
GGATATTGTTCCTTTTTCTGAACTTGGAACTACTCCCTCTGGTGGTGGATTTTTTCAGGGTATTTCTTTTCCTGA
AATCTCCACCCGTCCTCCTTTGGGCAGTACCGAACTACAGGCAGCTAAGAAAGTACATACTTCTAAGGGAGACCT
ACCTAGGGAGCCTCTTGTTGCCACAAACTTGCCTGGCAGGGGACAGTTGCAGAAGTTAGCCTCTGAAAGGAATTT
GTTTATTTCATGCAAGTCTAGCCATGATAGGTGTTTAGAGAAAAGTTCTTCGTCATCTTCTCAGCCTGAACACAG
TGCCATGTTGGTCTCTACTGCAGCTTCTCCTTCACTGATTAAAGAAACCACCACTGGTTACTATAAAGACATAGT
AGAAAATATTTGCGGTAGAGAGAAAAGTGGAATTCAACCATTATGTCCTGAGAGGTCCCATATTTCAGATCAATC
GCCTCTCTCCAGTAAAAGGAAAGCACTAGAAGAGTCTGAGAGCTCACAACTAATTTCTCCGCCACTTGCCCAGGC
AATCAGAGATTATGTCAATTCTCTGTTGGTCCAGGGTGGGGTAGGTAGTTTGCCTGGAACTTCTAACTCTATGCC
CCCACTGGATGTAGAAAACATACAGAAGAGAATTGATCAGTCTAAGTTTCAAGAAACTGAATTCCTGTCTCCTCC
AAGAAAAGTCCCTAGACTGAGTGAGAAGTCAGTGGAGGAAAGGGATTCAGGTTCCTTTGTGGCATTTCAGAACAT
ACCTGGATCCGAACTGATGTCTTCTTTTGCCAAACTGTTGTCTCTCATTCACTCACTACCTTAGGTCTAGAAGT
GGCTAAGCAATCACAGCATGATAAAATAGATGCCTCAGAACTATCTTTTCCCTTCCATGAATCTATTTTAAAAGT
AATTGAAGAAGAATGGCAGCAAGTTGACAGGCAGCTGCCTTCACTGGCATGCAAATATCCAGTTCTTCCAGGGA
GGCAACACAGATATTATCAGTTCCAAAAGTAGATGATGAAATCCTAGGGTTTATTTCTGAAGCCACTCCACTAGG
AGGTATTCAAGCAGCCTCCACTGAGTCTTGCAATCAGCAGTTGGACTTAGCACTCTGTAGAGCATATGAAGCTGC
AGCATCAGCATTGCAGATTGCAACTCACACTGCCTTTGTAGCTAAGGCTATGCAGGCAGACATTAGTGAAGCTGC
ACAGATTCTTAGCTCAGATCCTAGTCGTACCCACCAAGCGCTTGGGATTCTGAGCAAAACATATGATGCAGCCTC
ATATATTTGTGAAGCTGCATTTGATGAAGTGAAGATGGCTGCCCATACCATGGGAAATGCCACTGTAGGTCGTCG
ATACCTCTGGCTGAAGGATTGCAAAATTAATTTAGCTTCTAAGAATAAGCTGGCTTCCACTCCCTTTAAAGGTGG
AACATTATTTGGAGGAGAAGTATGCAAAGTAATTAAAAAGCGTGGAAATAAACACTAGTAAAATTAAGGACAAAA
AGACATCTATCTTATCTTTCAGGTACTTTATGCCAACATTTTCTTTTCTGTTAAGGTTGTTTTAGTTTCCAGATA
GGGCTAATTACAAAATGTTAAGCTTCTACCCATCAAATTACAGTATAAAAGTAATTGCCTGTGTAGAACTACTTG
TCTTTTCTAAAGATTTGCGTAGATAGGAAGCCTGGTACAAACAATTTAACGCTTTCTAGATCACATATTAGTCTC
TAAGTTGTTTTCTGTTTCCTGCTTTACTTATGTTTTTACAATTCTCCAAAACTAAGAAAATTCTAATTAGGATAT
AAGGAGTATTTACTGTTCAATAGAATAATATGCATCCTCCTTTATACCTAGGACAGAATTAAACATTTGTTACAC
ATTCAGAACAGTGATGTTGTTCTTTTTGATACTTTTATCTCAGTATCTTTTCACGTTCCATAACTTGTCCATATT
TTTGCTCATATTTTCTTACTTTTCTTTGTTATTTATTCATGTCTGCAACATCAATCATAGTAGTCTAGATCAATG
CAACTCAAAGCACCAGTCTACAAACTGTTACTTATCCACAGGCAAGATAAGCATGCACAAGAATTTAAATCTAGA
GATACTTTTTAGGTCAATGACAGGATTTGATTTTTTAGCAAAATTTTATTAATAGCTAAAGCAATGTATTGATTT
ACACTCTGATGCAAGTAATTTATCTCTTCATTGACTGGTAGCAACCAATTCATGGACCAGTACCATGGACCACAC
TTTGAGAAACACTTCTTTGGATAATAATAGATATCCTGGGATAGTGCATGTTCACCATCTATTTGTCAGATAAT
GGGGCCTTTTAAAAAATAATACTTTGCTTTCATGATATATTGTATTTTGTGGAAAGTTAAGTTAGCAATATAGA
CTCTAAAAGCAAATTAAATTTTTTTAAGCCATAAGAAATTATACTATATCCCAGTATCTGTATGTCTGTATAAAG
CAGTGTATTATCATGTTTTCATTTCTGTGATTGTAAGTTAAGAGTCTTAACTGCAGAGGTATTGTGGAAAGTAGT
AGCCTTAAGCATAATAAAATATGGTCTCTTGGGTACTCCCTCTGGCCATTACCACATTCTTAGATTATATGTGTC
CATCTTTGCAGCTTTCTGAGAGTAATTTTATTTGTTGTCTTCTGAAATGTACATGTATACATGTACCTACTGAGT
GCTATGTGATTTTTAAAAATGTATTACTGTAGAATGCTTCTGCAAATTCAATAAAGTTGTTAAATTGAACAGTG
TTGTGTGGTCTCCAGAAACATGTTGTTCTGTGTGCTTATTCTTGGAGTTGCAACAAGTTAAATATTTGTATATG
AACACCCCTTTTCCATTTCATCATTGAAACTCACTTTGACATTTCAGTGGTATAATTGAAAATATTCTGATTATG
GTATGGTTTTCTTCTGTTTGAGGACCATGTTTTTATTGACTGTTGGAATCTAAATTTATAAGAGGAATTAATCT
GTAACCAGATACCTTATTCGTTTAACCGATTTCTATTCCACTACTAATGGTTTTTTTACTTTGTGCTTTCTAGT
TCTTAGATTCTGAGTTAACAAAGCATAAAATAGATTTTATATTGCTGGGGGTTGTACCAAACATAGATACATTGA
CAGATCCATTGATAGAAGTGTTGGGAGATGGACTTGAAATCTTAGTCCTAAATAAAGACTGAACTGTTTAAACTA
ACTTGATAAAAATCACTGTTCGTTTTTGGGAACCTGCAAGTATTAAATAGATTCTGTACTAACTAGTATTAACAC
TGGAAAGTTAGCAAGACACATATAGATGTCTTGACCACTTTTTCACACAAGTTCAGAGTTCATGTAAAACTTTAG
AATTGACTTCCTTTCTGTCTCTTCAGTAAGAAAGTAATCTAACTTAAATTTTTGGTAGTAGAAGTTTTAGAAATA
ACAACTGACTAATTTTGCTATACCATGATAAATGTCTACAAAAAGGGATTTTTTTTTTTTTGAAATGAAGTTTCG
```

FIGURE 319B

CTCTTGTCCCCAAAGCTGGAGTGCAATGGTGTGATCTCAGCTCGCTGCAACCTCCGCCTCCCAGGTTCAAGCAAT
TCTCCTGCCTTAGCCTCCTGAGTAGCTGGGATTACAGGTGTCTGCCACCAACCCTGGCTAATGTTTGTATTTTA
GTAGAGACGGGGTTTCACCATGTTGGCCAGGATGGTCTTAAGCTGACCTCAGGTGATCCGCCCACCTCGGCCTTC
CAAAGTGCTGGGATTACAAGCGTGAGCCACCATGCCCTGCCAGGGATGTTAACTAAAATCAGTCTTTTCAAAACC
TAGATCTTCAAATGATGATGAATTTAAGACTAGGAGACTGGAATATTGAAGCCTATTAAAAAATACATATCCTTG
CGTTGTTAGGTTAATAACTATCATGGTGACAAGTGTATAAGTATTGGCTTCTTTTCAAAGAAATGTTATTTTTAT
TATAAGGACTGGGACGAGAAGTGACCTGTGATTGGTCGTATTTTTCTGTGAACAAGATTCCTTCTTTACCTGAGT
TGTACCTAGGTTTTTTATAACTACATCAAAAAAGCTTTTATATTGTACTTATTAATGTTATGGCAGTTACTTATA
GAAGCTTGGTACTATATGGATTTTTTTCATTTTTAAACTTTCCCTTCTATGTTCCAAATTTTAATTTAGTAAGTC
AACCTTTGCTGTACAGTAGTAGTATACTGTATGGACAAAACAATGGTAACAATTGTGTTATTTTAAATGGCCTTT
TTCCACATCTAAATTGTTCTTACTGAAAAGCTTTCGTGGGAGCATTTTGAACTCACTTCATGTTCAAAGCTATGA
GTCCCAGATAAAGGAAAGGAGAATAGGTAGGAAGAAGTGGTTGTCAGATGAAAGGGTAAGGGAGATAAGCAAAAA
TGGGATAAATAATGAAACAGTTTTCAAGACAAATTGCAGTTAAACAATTTTGGACTAGTGAGGTATTACCAGTAG
ACTTGTTTTTCACCTTTTAATGTGCCTAAAACCAGGGTTCCCGATTAATATTAGGATAACATCATCATTTATTGA
GTGTTTCAGAGAGTAATGGTTTCTCCAATGTTATTTCCAGACTCTAAAATAGAGCTCAAGCTTGAGAAGAGAGAA
CCACTAAAGGGCAGAGCAAAGACTCCAGTAACACTCAAGCAAAGAAGAGTTGAGCACAATCAGGTATCTTTAGTT
TTATTACCACCGTGTACAGGTATAAATAACCTCCTGACAACACTAATCCATGTTTTAGCCTTTAATGGTTGACAC
CCAGATTCCAGCACGCTCAATAAACTTAATTCTGTTGTTAAATGATACTAAAAATCTAAACTTTGTGGGTTTTGT
CAGTAGTGTAGCCTGTGATTACAGCAAAAGCAAATTTTTAATGTCTCATTTGTGTTTGAGTCTGTGCTAGATGTA
GTTCAAAGCCAGTTATATGGTGTTTTGAAAGAAATATTTAAAAGGTGGAAATATCTAGACACTTTTGATACAAT
TTCTTTAAAAGGCAATGGAAGGGTTTTATATTTGTGTCTTTGTCTCTAGATTTCTGACTTTGATTTATGTTTGC
CTGTCTTGTCTTCTGCGATTCTTTCCTAAACTCAGAAGCTAGTCTGGTCCTAAGACTACAGTTTTCTTTCCTTAT
TTCAGATGAAAATTTACCTTTTCTATTGTGGGAGAGGCGTTTCAGTTTTTCAAAAGGGAAATGTAGGAAACTAAG
GAGAAAATAAGCATAGGTATAAATGAACAGAGAACAAATTATTGACTAACCTAGTATTGTTTACAGAGAACAAAT
TATTGACTAACCTAGTATTGTTTACAGAGAACAAATTATTGACTAACCTAGTATTGTTTACAGAGAACAAATTAT
TGACTAATGCAGCATTGATTGGCTGATGCTTTATAAGACAGCTATTCCTAGAGTCATTTTCCTTACCCCTGCTA
TGTCTAGCTGGATGATTTGTCTAGTTGGTTATCTTTTCCATCTCCTATTTGTCACTTTGTGTGTTTGTTTGTGAC
GGAGTTTTGCTCTTGTCACCCGGGCTGGAGTGCAGTGGCGTGATCCCATCTCATTGCAACCTCCACCCTGCTGGG
CTCAAGCGATTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGATTACAGGCACATGCCACCACGCTCAGCTAATTTT
TGTATTTTTAGTAGAGACGGGGTTTCACCGTGTTGGCCAGGCTGGTCTCAAACTCCTGACCTCAGGTGATCCACC
TGCATTGGCCTCCGAAAGTGCTGGGATTACAGGTGTGAGCCACCGCGCCCAGCCTGTTTGTCGTTTTAAAATCAA
ATCCTTAGAGGAATTATTCTTGATTCCTTAAGGCAAGTCAGTCTCTCTCTTCATTTGATGTAGTTGATAAGTTGA
ATTTCAGAACGATTTGTTAGAAATGAGCTTTGTGACAAGAACATACAGAGCATTGAATGAATGAAGACTTTGTTA
ACATAGAACCAAATACTGGAATACATGTTTTATTGCCCTTTTATGTAGTAGTCCTAACAAATAGCTTCAGGAGCA
TGCTGAAGAATAAGGAAATAGGCCGGGCGCAGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGG
GCGGATCACCTGAGGTCCGGAGTTCGAGACGAGCCTGACCAACATGGAGAAACCCTGTCTCTACTAAAAATACAA
AATTAGCCAGGCATGGTGGTGCATGCCTGTAATCCTAGCTACTCCGGAGGCTGAGGCAGGAGAATCGCTTGAACC
TTGGAGGCGGAGGTTGCTGTGAGCCGAGATCGCGCCATTGCACTCTAGCCTGGGCAACAAGAGCGAAACTCTGTC
TCAAAAATAAATAAATAAATAAATAAATAATAAAGATGGTCTAAGGGATAATTGAGTTGGAGGAATCTAAACTGA
GGAGCAGAATAAATAGTCAAAGGAGTGTAGGTTTAGATGACAGGCAGAATTAGACAGTGGCTTTATTGCAGAAAA
TTTAAAACATGTAGAAGAGTGGAGGGAAGAGTTTAATGACCCTCCAGTCATAGATGTGCCACAGTTGTCAGTGTT
TTACCAGTTTGGTTTCATCACCCCACACCCTCCAGCTTTTTAAATTACTTTTTTTTTTTTTTTTGAGACA
GAATCTCACTCTGTCGCCCAGGTTGGAGTGCAGTGGCACAATCTCGGCTCACTTGCAACCTCCGCCTCCTGGGTT
CAAGCAGTTCTCCTGCTTCAGCCTCCTGAGTAGCTGGGATTACAGGTTCCCGCCACCATGCCCAGCTAGTTTTTG
AATTC

FIGURE 320A

```
GCCATTTCCTCCTCTTGTTTTCACTCCGGATTCTCCATGTTGGACCCAAACTGAGGAGCCCGGAGCTGCCGCTGG
GGGATCGGGGCCGGGGGCACCCGGGGGGAGCCGCTGCCCGGGCCGCCCGCCCTTTGTACAGGCCGCCTCCCTTCCC
GGTCCGGGGAGGAAACGAGAGGGGGGATGTGAACAGCTGTGGAAGTCGGAGTCTCGGGAGCCGGAGCGGGCCCCC
GCCCAGGCCCCCCAGCCCAGCCCAGCCCGCGCGCCCGCCCGTCCTCCCGTCCAGCCAGCCCGGGCCCGCGGGATT
GTTAG**ATG**GAACACGGCTCCATCATCACCCAGGCGCGGAGGGAAGACGCCCTGGTGCTCACCAAGCAAGGCCTGG
TCTCCAAGTCCTCTCCTAAGAAGCCTCGTGGACGTAACATCTTCAAGGCCCTTTTCTGCTGTTTTCGCGCCCAGC
ATGTTGGCCAGTCAAGTTCCTCCACTGAGCTCGCTGCGTATAAGGAGGAAGCAAACACCATTGCTAAGTCGGATC
TGCTCCAGTGTCTCCAGTACCAGTTCTACCAGATCCCAGGGACCTGCCTGCTCCCAGAGGTGACAGAGGAAGATC
AAGGAAGGATCTGTGTGGTCATTGACCTCGATGAAACCCTTGTGCATAGCTCCTTTAAGCCAATCAACAATGCTG
ACTTCATAGTGCCTATAGAGATTGAGGGGACCACTCACCAGGTGTATGTGCTCAAGAGGCCTTATGTGGATGAGT
TCCTGAGACGCATGGGGGAACTCTTTGAATGTGTTCTCTTCACTGCCAGCCTGGCCAAGTATGCCGACCCTGTGA
CAGACCTGCTGGACCGGTGTGGGGTGTTCCGGGCCCGCCTATTCCGTGAGTCTTGCGTGTTCCACCAGGGCTGCT
ACGTCAAGGACCTCAGCCGCCTGGGGAGGGACCTGAGAAAGACCCTCATCCTGGACAACTCGCCTGCTTCTTACA
TATTCCACCCCGAGAATGCAGTGCCTGTGCAGTCCTGGTTTGATGACATGGCAGACACTGAGTTGCTGAACCTGA
TCCCAATCTTTGAGGAGCTGAGCGGAGCAGAGGACGTCTACACCAGCCTTGGGGCAGCTGCGGGCCCCTTAGCCT
GCCCTGCTTCCAAGCGACGGCCATCCCAG**TAG**GGGACTTTCCCACACTGTGCCTTTACGATCAGCGTGACAGAGT
AGAAGCTGGAGTGCCTCACCACACGGCCCGGAAACAGCGGGAAGTAACTGGAAAGAGCTTTAGGACAGCTTAGAT
GCCGAGTGGGCGAATGCCAGACCAATGATACCCAGAGCTACCTGCCGCCAACTTGTTGAGATGTGTGTTTGACTG
TGAGAGAGTGTGTGTTTGTGTGTGTGTTTTGCCATGAACTGTGGCCCCAGTGTATAGTGTTTCAGTGGGGGGAGAA
GCTGAAAGACCAAGACTCTTCCCAAGTTAGCTTGTCTCCTCTCCTGTCACCCTAAGAGCCACTGAGTTGTGTAGG
GATGAARACTATTGAAGACTCCATTGCCAAACCATGGCCTTTCCTCAGTGTTGTAAGGCCTATGCCAAGGATAAA
GGAAGGGTATGCCTTTGGGTACTCCAGGCATACACCTTTCTGAAATCCTTCTCCAGCCAGCTGCTGCAGACAAAA
GATCACATTTCTGGGAAGATGAGAACTTGTTTCCAGACCAGCATCCAGTGGCCATCAGGTCTTGTGGCCCAAAGG
CTATGCTTGCCTCCGGCTGAGTGCCTGGGATAGGCCTTTTCTATGTCTCCCCAAGGCTGGGGTGCTGAGCCTGCC
TTCCTCACCACCTAGCCATAGTCTCAAACCTGTGGGGAAGGAGGTTTTCTCCCTGCCCGGGAAGAGGACAGATAA
CTGATTTCCGTTCTTTTGACTGTGTTTTAAAATTCTCTTTCTAAACACAGAGTGTTGGGCCTGGTTTGTTTCTGA
CAAAGTTACAGTCCTGGGCCTGTAATGAATGTCGGCGGCGCTGGGGTTGCAGGGAAAAGACAAATCCTCAAAGCG
TGGACGTGTGTCCCCATGGCTTGTGGATCAGCTAAGCTCGGGATCATTTCCATAAGTCTGCTTTTCAGGGATTCT
CTGCTGGTGCTGGTGCAAGGACTTCTGTTCCAAAGGCTGGGAAAAACTAAGCTGTCCCAGCCCCTCCCATTTCTT
GGGCAGGGCTCTTTTCCTGTTGTGTCTTCCCCCAGGGCCTGTCCTGTACCGAGCTCTGTCTGTTCCAGCCTACAT
CCTTCCTGGGTGTTGCTTTTCCTCTTAAGGGCCTCAGAACTCTTGCTCTTCCTGGGGTGAGGGGGAATGAGTGTT
CTTGACATGTGACAGCCTAATGCGCATGCTTTCTGCCTCTGGTAACAGGAGTGAGTGAGCCCCTCAGACCTGCAC
TCTGGGTGTCTCCTGCTTACAAAGGTTCTTAATAGTGAATGCTTTAAAATTAAAGTCATCACGAAATGGAAGTTT
TCCCAGGGTGGAAAATAAGAGGAAGTGCTGCTGTAATTGGGAGCACAAGGGGCCTCCCAAAAAGGAGCCCCACCT
CAGCATCACTGCCTTAATCGTGGCCTCCCTGGGGTGGGTGGGGTTCTCTCCTCCCTCCCTCCCTCCTCCTGGGGT
GGGAGGGCGCTCCTGTTCCCATCTCTGTGTTCCCTGGAGGCAGGTATCACAAAGCATTTGTGAATTGCTTTAGGT
GCAGGGACACCACCCACTCAGGACTCTTCCCCATCATCCCTTCCATTGCCACACCCTAGATCCAGCCTCAGGAAC
TAACAAGTTKTGAGAAAAGCAGGTGGTAGAGCAGCAGCTTCGTGCTCTCAGCGGTGGCTGGCTGGCATTTTTCTC
TAGCGTTGTGGTGCCACCTTCCCTTCTTGTCCCAAGGTTATAAGGCCTTGTCTTTCTCTTTGGAATCATAAAGTG
GAACAGAGTCCCCAGAACTCATGTGGHCATTTCCGACAGCATCACTCCCCGGTGCCTATGGGGTCCCGGTGTACC
TAAAGGGAGAAGGACCCCATGTGCTAGCCAGAAATATACTGTCTCTTGAAGGAAAGCAGGAGCTCAGACTCTTAG
AGCCAGCTGTGGCTTCGGACCCAAGGCCTGACCTAGGCTGCTATCCTAATATTGGAGGAGGGGCCTCTCTTCCAA
GCCCCACCCTAAGGGTTAGCCCTTGGACAAATCTTGTGCCGTCTAGGCCCAGCCAGGCTTTTCTGACTAAATAAG
CAATAAGAGGCTCTAAGCTGACTGAGTTGCAAGGACCCTTTCCGCCCTCCCTTGGATCTCCATGTTTCTCCAGAT
GGCGGAAGAGCATGTGCCCACCCCCTTTCCTAACAGACTTGTCCAAGTGCTTGGCGTGGGACCCATGACCAAAGCC
CAGGATGGCTTGGTGGGAGTGTCCCTGCTGCATCTGCATGAAGCCCTGCTTTTTAGGCCTCACTCCCATCAGAA
CCCTGCCTGCCCACCTGCAACTCCCCCCCAACAATGCCATTCCCACTTGCCCCAGAGAAGCTACTCGGCCAAACC
TAGCCAGGGTCTGTTCTTGTGGACCAGAGCCAGCCTAGTCATTATTTGCTGTCGGGTTTCCAGTTTCACCGTGTG
```

FIGURE 320B

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TTAGGGTGAGGGATGATTGTAAAATTTGCTCCTCAAAGGAATCAGGCCAGACTCAATTTTGGGAGGGCAAGACAG
GGAGGAGGCCGCTTCATCCCAGACTCTCTTCTAGGGCTTCCCACCATCAGCCCCTCCCACTTGAGACTGGTCTTT
GGGAGGCAATAGGCCACCATGCCTGGTCAGCACCAATTCAAGCCATGCCAGGAATCTGCCTACCTGCCAGGTTCA
GTTCTTTTAAGGTGCCTCTTCAGGGACACAGTGTGTCTCTCTGATTGGGCTTCTAAATCAAAAGCCTGATGTTCG
TGTCCCTCTCATAGGGGGAGCTTTGGACACAGGACCAGTTTGGAAAAGGGTCAGGTAAGGGTTTCCACTCTGCAC
ATTGTAGAGGGAACACTCTGTAGGCCCATGGGTCCCTTACTAGAGAGGTTGAGTGAATTTGCCTTCAGTTAACAT
GGGACCTTCTGTTTAGCTTCCTCTTGCTTCCCAAAGATTTTAAGCATTTTGTAAATGTATAAACTCACCTCTGGT
AACAGTGGCCCAGACGCTGCTTTGTGCTAAAAGCATGGGAAATGTAAAGGCAGTCTTTCTCTGGGAAATGGATGC
TATTCTATTCTGCTGCCCCTACCTGTTCCTGAGGCCTCATTTAGAAAGAAAATCCCCTCAGAAGGCTGTCTGGCA
CCCAGTGTCCTAGCCAGGCCAAGTATATGAGAAAGGTAAGTCCATTTTCCCCTTCAGGTCCTCAGTGGATTACTT
AACCACTGCTGTCCCTCGGTCCCTTTTTCCTAAACGGGTTTAGTTCTGTCTTTTTTCTCCTTTTTTCTAAATGCT
GGTAAATATTTACATTCAGCCAGGGAAGAGGAGGCCAGAGGTCGGGCCAGCTGCCCCATTCTTTTAACGTTGTAG
GGCCTGCCCATGGAGCGGACCCTCCTCTTTGGGCCTCGTGAGCTTTTTTGCTTATCATGTTCCATTCGTGCCGC
TTTCCCCCTTCAAGATGCCATTTGGAGGGTAGGGGATCTGCTTCCCACTGTGACTGGGCTATGGGATTCTGACTA
CCTTGCTTACAGATTCATGGTTTGATAAATTTGTTGTATTCCAAAACTTGAAATGCAGGACGCCATTAAGTGTCT
GTTTATATTTTTGGAATATTTGTATTACTTACAATTAATTAATAAAAGTGGGTTTAAAAAACCTTTCCAGGAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
```

FIGURE 321

MEHGSIITQARREDALVLTKQGLVSKSSPKKPRGRNIFKALFCCFRAQHVGQSSSSTELAAYKEEANTIAKSDLL
QCLQYQFYQIPGTCLLPEVTEEDQGRICVVIDLDETLVHSSFKPINNADFIVPIEIEGTTHQVYVLKRPYVDEFL
RRMGELFECVLFTASLAKYADPVTDLLDRCGVFRARLFRESCVFHQGCYVKDLSRLGRDLRKTLILDNSPASYIF
HPENAVPVQSWFDDMADTELLNLIPIFEELSGAEDVYTSLGAAAGPLACPASKRRPSQ

FIGURE 322

CGTCTGGTTCAGGGGCTAGAAAAGAGCGTCGATGCCGGCGGCAGTGATGAGTCCTAGGAGGCGCTGGCTCTTTGG
CGGCTCGGAGGAGCGGCTGCTGCTGCTGCTGCTGCTGCTGGTGGCCCCTTTGCAGATGTATTGCTGTCCTTGAAT
ATTAGCCCATTTGAAAACGCCTGGGAAGTTCAGCCATCAGT**ATG**TCCAAGTACAAACTTATTATGTTAAGACATG
GAGAGGGTGCTTGGAATAAGGAGAACCGTTTTTGTAGCTGGGTGGATCAGAAACTCAACAGCGAAGGAATGGAGG
AAGCTCGGAACTGTGGGAAGCAACTCAAAGCGTTAAACTTTGAGTTTGATCTTGTATTCACATCTGTCCTTAATC
GGTCCATTCACACAGCCTGGCTGATCCTGGAAGAGCTAGGCCAGGAATGGGTGCCTGTGGAAAGCTCCTGGCGTC
TAAATGAGCGTCACTATGGGCCTTGATCGGTCTCAACAGGGAGCAGATGGCTTTGAATCATGGTGAAGAACAAG
TGAGGCTCTGGAGAAGAAGCTACAATGTAACCCCGCCTCCCATTGAGGAGTCTCATCCTTACTACCAAGAAATCT
ACAACGACCGGAGGTATAAAGTATGCGATGTGCCCTTGGATCAACTGCCACGGTCGGAAAGCTTAAAGGATGTTC
TGGAGAGACTCCTTCCCTATTGGAATGAAAGGATTGCTCCCGAAGTATTACGTGGCAAAACCATTCTGATATCTG
CTCATGGAAATAGCAGTAGGGCACTCCTAAAACACCTGGAAGGTATCTCAGATGAAGACATCATCAACATTACTC
TTCCTACTGGAGTCCCCATTCTTCTGGAATTGGATGAAAACCTGCGTGCTGTTGGGCCTCATCAGTTCCTGGGTG
ACCAAGAGGCGATCCAAGCAGCCATTAAGAAAGTAGAAGATCAAGGAAAAGTGAAACAAGCTAAAAAA**TAG**TCTT
TCTCAACTGTTGGCTAAGAAGAAATGCAAAAGAAGTGGCATAGGAGTGTGTTATGGGTGCTGAACTCTCTCTCTT
TTTCCCCGATTTTCCAGAGCTAGGCTGTGGAGTAGAGTTTGTATAGGTAACTAGGTAACTTATTGTGGCCCAGAT
AAGGCTTTAGGATGCCTCAGTGCTTATGTCATAGCCTTATGAGTTAGCTTTCTTGCTAGCCCCCTAGTCGGTCAC
CAAACTAGTAACTAGTGGGGCTTAATGAAGGTCATAAGTTTCTGAGATGGGAGAGCAACAAGTAGAGATGAAGTT
AAAGGTATTTATCATTCAAGAAATCATTATTGAGTCACCATTGACAGGCACTATTCTAATCAGTAGTTCACTTTA
ATATTTAATAAGATTTTCTGGGATAACAGTAAGGGATATTAGATAATATACCGTATGTATTTATTACTAGTCTTT
TCCTCTAGGAAAAGGGATACTTTGATAATTAAGGCCAGAGGCCCATTAGTTGAGAAAGTCACAGATATATTCTC
CAAGAAAGCCAACAACCACCACCACAATGACAGAAATGACAACAAGGCCCTTTAACTTGTCTTCTAGTTTAGAGA
CATCCTTCATTTGACATTTAGTAGAATTCCTCTTTGGCCACAAGAATAAGCAGCAAATAAACAACTATGGCTGTT
GAGGTTCTCATTTTGGTTTGTTTTAATTTTTTGAACTTTGGGTACCTGTAATTAGTTTAAAAATAAAGTTCCTGA
TAATAAAGTGACTGAAAATGGCAAAAAAAAAAAAAAAAAA

FIGURE 323

MSKYKLIMLRHGEGAWNKENRFCSWVDQKLNSEGMEEARNCGKQLKALNFEFDLVFTSVLNRSIHTAWLILEELG
QEWVPVESSWRLNERHYGALIGLNREQMALNHGEEQVRLWRRSYNVTPPPIEESHPYYQEIYNDRRYKVCDVPLD
QLPRSESLKDVLERLLPYWNERIAPEVLRGKTILISAHGNSSRALLKHLEGISDEDIINITLPTGVPILLELDEN
LRAVGPHQFLGDQEAIQAAIKKVEDQGKVKQAKK

FIGURE 324A

GGCGCGGGCGGCCTGGAGCCCCGGGAGCGGCGCGCGCGGTCCCGGCCCAGCCGGCTCTCCTGGCCTCGCGCTGCA
CATTCTCTCCTGGCGGCGGCGCCACCTGCAGTAGCGTTCGCCCGAAC**ATG**GCGACACGGAGCAGCAGGAGGGAGT
CGCGACTCCCGTTCCTATTCACCCTGGTCGCACTGCTGCCGCCCGGAGCTCTCTGCGAAGTCTGGACGCAGAGGC
TGCACGGCGGCAGCGCGCCCTTGCCCCAGGACCGGGGCTTCCTCGTGGTGCAGGGCGACCCGCGCGAGCTGCGGC
TGTGGGCGCGCGGGGATGCCAGGGGGGCGAGCCGCGCGGACGAGAAGCCGCTCCGGAGGAAACGGAGCGCTGCCC
TGCAGCCCGAGCCCATCAAGGTGTACGGACAGGTTAGTCTGAATGATTCCCACAATCAGATGGTGGTGCACTGGG
CTGGAGAGAAAAGCAACGTGATCGTGGCCTTGGCCCGAGATAGCCTGGCATTGGCGAGGCCCAAGAGCAGTGATG
TGTACGTGTCTTACGACTATGGAAAATCATTCAAGAAAATTTCAGACAAGTTAAACTTTGGCTTGGGAAATAGGA
GTGAAGCTGTTATCGCCCAGTTCTACCACAGCCCTGCGGACAACAAGCGGTACATCTTTGCAGACGCTTATGCCC
AGTACCTCTGGATCACGTTTGACTTCTGCAACACTCTTCAAGGCTTTTCCATCCCATTCGGGCAGCTGATCTCC
TCCTACACAGTAAGGCCTCCAACCTTCTCTTGGGCTTTGACAGGTCCCACCCCAACAAGCAGCTGTGGAAGTCAG
ATGACTTTGGCCAGACCTGGATCATGATTCAGGAACATGTCAAGTCCTTTTCTTGGGGAATTGATCCCTATGACA
AACCAAATACCATCTACATTGAACGACACGAACCCTCTGGCTACTCCACTGTCTTCCGAAGTACAGATTTCTTCC
AGTCCCGGGAAAACCAGGAAGTGATCCTTGAGGAAGTGAGAGATTTTCAGCTTCGGGACAAGTACATGTTTGCTA
CAAAGGTGGTGCATCTCTTGGGCAGTGAACAGCAGTCTTCTGTCCAGCTCTGGGTCTCCTTTGGCCGGAAGCCCA
TGAGCAGCCCAGTTTGTCACAAGACATCCTATTAATGAATATTACATCGCAGATGCCTCCGAGGACCAGGTGT
TTGTGTGTGTCAGCCACAGTAACAACCGCACCAATTTATACATCTCAGAGGCAGAGGGGCTGAAGTTCTCCCTGT
CCTTGGAGAACGTGCTCTATTACAGCCCAGGAGGGGCCGGCAGTGACACCTTGGTGAGGTATTTTGCAAATGAAC
CATTTGCTGACTTCCACCGAGTGGAAGGATTGCAAGGAGTCTACATTGCTACTCTGATTAATGGTTCTATGAATG
AGGAGAACATGAGATCGGTCATCACCTTTGACAAAGGGGGAACCTGGGAGTTTCTTCAGGCTCCAGCCTTCACGG
GATATGGAGAGAAAATCAATTGTGAGCTTTCCCAGGGCTGTTCCCTTCATCTGGCTCAGCGCCTCAGTCAGCTCC
TCAACCTCCAGCTCCGGAGAATGCCCATCCTGTCCAAGGAGTCGGCTCCAGGCCTCATCATCGCCACTGGCTCAG
TGGGAAAGAACTTGGCTAGCAAGACAAACGTGTACATCTCTAGCAGTGCTGGAGCCAGGTGGCGAGAGGCACTTC
CTGGACCTCACTACTACACATGGGGAGACCACGGCGGAATCATCACGGCCATTGCCCAGGGCATGGAAACCAACG
AGCTAAAATACAGTACCAATGAAGGGGAGACCTGGAAAACATTCATCTTCTCTGAGAAGCCAGTGTTTGTGTATG
GCCTCCTCACAGAACCTGGGGAGAAGAGCACTGTCTTCACCATCTTTGGCTCGAACAAAGAGAATGTCCACAGCT
GGCTGATCCTCCAGGTCAATGCCACGGATGCCTTGGGAGTTCCCTGCACAGAGAATGACTACAAGCTGTGGTCAC
CATCTGATGAGCGGGGGAATGAGTGTTTGCTGGGACACAAGACTGTTTTCAAACGGCGGACCCCCCATGCCACAT
GCTTCAATGGAGAGGACTTTGACAGGCCGGTGGTCGTGTCCAACTGCTCCTGCACCCGGGAGGACTATGAGTGTG
ACTTCGGTTTCAAGATGAGTGAAGATTTGTCATTAGAGGTTTGTGTTCCAGATCCGGAATTTTCTGGAAAGTCAT
ACTCCCCTCCTGTGCCTTGCCCTGTGGGTTCTACTTACAGGAGAACGAGAGGCTACCGGAAGATTTCTGGGGACA
CTTGTAGCGGAGGAGATGTTGAAGCGCGACTGGAAGGAGAGCTGGTCCCCTGTCCCCTGGCAGAAGAGAACGAGT
TCATTCTGTATGCTGTGAGGAAATCCATCTACCGCTATGACCTGGCCTCGGGAGCCACCGAGCAGTTGCCTCTCA
CCGGGCTACGGGCAGCAGTGGCCCTGGACTTTGACTATGAGCACAACTGTTTGTATTGGTCCGACCTGGCCTTGG
ACGTCATCCAGCGCCTCTGTTTGAATGGAAGCACAGGGCAAGAGGTGATCATCAATTCTGGCCTGGAGACAGTAG
AAGCTTTGGCTTTTGAACCCCTCAGCCAGCTGCTTTACTGGGTAGATGCAGGCTTCAAAAAGATTGAGGTAGCTA
ATCCAGATGGCGACTTCCGACTCACAATCGTCAATTCCTCTGTGCTTGATCGTCCCAGGGCTCTGGTCCTCGTGC
CCCAAGAGGGGGTGATGTTCTGGACAGACTGGGGAGACCTGAAGCCTGGGATTTATCGGAGCAATATGGATGGTT
CTGCTGCCTATCACCTGGTGTCTGAGGATGTGAAGTGGCCCAATGGCATCTCTGTGGACGACCAGTGGATTTACT
GGACGGATGCCTACCTGGAGTGCATAGAGCGGATCACGTTCAGTGGCCAGCAGCGCTCTGTCATTCTGGACAACC
TCCCGCACCCCTATGCCATTGCTGTCTTTAAGAATGAAATCTACTGGGATGACTGGTCACAGCTCAGCATATTCC
GAGCTTCCAAATACAGTGGGTCCCAGATGGAGATTCTGGCAAACCAGCTCACGGGGCTCATGGACATGAAGATTT
TCTACAAGGGGAAGAACACTGGAAGCAATGCCTGTGTGCCCAGGCCATGCAGCCTGCTGTGCCTGCCCAAGGCCA
ACAACAGTAGAAGCTGCAGGTGTCCAGAGGATGTGTCCAGCAGTGTGCTTCCATCAGGGGACCTGATGTGTGACT
GCCCTCAGGGCTATCAGCTCAAGAACAATACCTGTGTCAAAGAAGAGAACACCTGTCTTCGCAACCAGTATCGCT
GCAGCAACGGGAACTGTATCAACAGCATTTGGTGGTGTGACTTTGACAACGACTGTGGAGACATGAGCGATGAGA
GAAACTGCCCTACCACCATCTGTGACCTGGACACCCAGTTTCGTTGCCAGGAGTCTGGGACTTGTATCCCACTGT
CCTATAAATGTGACCTTGAGGATGACTGTGGAGACAACAGTGATGAAAGTCATTGTGAAATGCACCAGTGCCGGA

FIGURE 324B

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GTGACGAGTACAACTGCAGTTCCGGCATGTGCATCCGCTCCTCCTGGGTATGTGACGGGGACAACGACTGCAGGG
ACTGGTCTGATGAAGCCAACTGTACCGCCATCTATCACACCTGTGAGGCCTCCAACTTCCAGTGCCGAAACGGGC
ACTGCATCCCCCAGCGGTGGGCGTGTGACGGGGATACGGACTGCCAGGATGGTTCCGATGAGGATCCAGTCAACT
GTGAGAAGAAGTGCAATGGATTCCGCTGCCCAAACGGCACTTGCATCCCATCCAGCAAACATTGTGATGGTCTGC
GTGATTGCTCTGATGGCTCCGATGAACAGCACTGCGAGCCCCTCTGTACGCACTTCATGGACTTTGTGTGTAAGA
ACCGCCAGCAGTGCCTGTTCCACTCCATGGTCTGTGACGGAATCATCCAGTGCCGCGACGGGTCCGATGAGGATG
CGGCGTTTGCAGGATGCTCCCAAGATCCTGAGTTCCACAAGGTATGTGATGAGTTCGGTTTCCAGTGTCAGAATG
GAGTGTGCATCAGTTTGATTTGGAAGTGCGACGGGATGGATGATTGCGGCGATTATTCTGATGAAGCCAACTGCG
AAAACCCCACAGAAGCCCCAAACTGCTCCCGCTACTTCCAGTTTCGGTGTGAGAATGGCCACTGCATCCCCAACA
GATGGAAATGTGACAGGGAGAACGACTGTGGGGACTGGTCTGATGAGAAGGATTGTGGAGATTCACATATTCTTC
CCTTCTCGACTCCTGGGCCCTCCACGTGTCTGCCCAATTACTACCGCTGCAGCAGTGGGACCTGCGTGATGGACA
CCTGGGTGTGCGACGGGTACCGAGATTGTGCAGATGGCTCTGACGAGGAAGCCTGCCCCTTGCTTGCAAACGTCA
CTGCTGCCTCCACTCCCACCCAACTTGGGCGATGTGACCGATTTGAGTTCGAATGCCACCAACCGAAGACGTGTA
TTCCCAACTGGAAGCGCTGTGACGGCCACCAAGATTGCCAGGATGGCCGGGACGAGGCCAATTGCCCCACACACA
GCACCTTGACTTGCATGAGCAGGGAGTTCCAGTGCGAGGACGGGGAGGCCTGCATTGTGCTCTCGGAGCGCTGCG
ACGGCTTCCTGGACTGCTCGGACGAGAGCGATGAAAAGGCCTGCAGTGATGAGTTGACTGTGTACAAAGTACAGA
ATCTTCAGTGGACAGCTGACTTCTCTGGGGATGTGACTTTGACCTGGATGAGGCCCAAAAAAATGCCCTCTGCTT
CTTGTGTATATAATGTCTACTACAGGGTGGTTGGAGAGAGCATATGGAAGACTCTGGAGACCCACAGCAATAAGA
CAAACACTGTATTAAAAGTCTTGAAACCAGATACCACGTATCAGGTTAAAGTACAGGTTCAGTGTCTCAGCAAGG
CACACAACACCAATGACTTTGTGACCCTGAGGACCCCAGAGGGATTGCCAGATGCCCCTCGAAATCTCCAGCTGT
CACTCCCCAGGGAAGCAGAAGGTGTGATTGTAGGCCACTGGGCTCCTCCCATCCACACCCATGGCCTCATCCGTG
AGTACATTGTAGAATACAGCAGGAGTGGTTCCAAGATGTGGGCCTCCCAGAGGGCTGCTAGTAACTTTACAGAAA
TCAAGAACTTATTGGTCAACACTCTATACACCGTCAGAGTGGCTGCGGTGACTAGTCGTGGAATAGGAAACTGGA
GCGATTCTAAATCCATTACCACCATAAAAGGAAAAGTGATCCCACCACCAGATATCCACATTGACAGCTATGGTG
AAAATTATCTAAGCTTCACCCTGACCATGGAGAGTGATATCAAGGTGAATGGCTATGTGGTGAACCTTTTCTGGG
CATTTGACACCCACAAGCAAGAGAGGAGAACTTTGAACTTCCGAGGAAGCATATTGTCACACAAAGTTGGCAATC
TGACAGCTCATACATCCTATGAGATTTCTGCCTGGGCCAAGACTGACTTGGGGGATAGCCCTCTGGCATTTGAGC
ATGTTATGACCAGAGGGGTTCGCCCACCTGCACCTAGCCTCAAGGCCAAAGCCATCAACCAGACTGCAGTGGAAT
GTACCTGGACCGGCCCCCGGAATGTGGTTTATGGTATTTTCTATGCCACGTCCTTTCTTGACCTCTATCGCAACC
CGAAGAGCTTGACTACTTCACTCCACAACAAGACGGTCATTGTCAGTAAGGATGAGCAGTATTTGTTTCTGGTCC
GTGTAGTGGTACCCTACCAGGGGCCATCCTCTGACTACGTTGTAGTGAAGATGATCCCGGACAGCAGGCTTCCAC
CCCGTCACCTGCATGTGGTTCATACGGGCAAAACCTCCGTGGTCATCAAGTGGGAATCACCGTATGACTCTCCTG
ACCAGGACTTGTTGTATGCAATTGCAGTCAAAGATCTCATAAGAAAGACTGACAGGAGCTACAAAGTAAAATCCC
GTAACAGCACTGTGGAATACACCCTTAACAAGTTGGAGCCTGGCGGGAAATACCACATCATTGTCCAACTGGGGA
ACATGAGCAAAGATTCCAGCATAAAAATTACCACAGTTTCATTATCAGCACCTGATGCCTTAAAAATCATAACAG
AAAATGATCATGTTCTTCTGTTTTGGAAAAGCCTGGCTTTAAAGGAAAAGCATTTTAATGAAAGCAGGGGCTATG
AGATACACATGTTTGATAGTGCCATGAATATCACAGCTTACCTTGGGAATACTACTGACAATTCTTTAAAATTT
CCAACCTGAAGATGGGTCATAATTACACGTTCACCGTCCAAGCAAGATGCCTTTTTGGCAACCAGATCTGTGGGG
AGCCTGCCATCCTGCTGTACGATGAGCTGGGGTCTGGTGCAGATGCATCTGCAACGCAGGCTGCCAGATCTACGG
ATGTTGCTGCTGTGGTGGTGCCCATCTTATTCCTGATACTGCTGAGCCTGGGGGTGGGGTTTGCCATCCTGTACA
CGAAGCACCGGAGGCTGCAGAGCAGCTTCACCGCCTTCGCCAACAGCCACTACAGCTCCAGGCTGGGGTCCGCAA
TCTTCTCCTCTGGGGATGACCTGGGGGAAGATGATGAAGATGCCCCTATGATAACTGGATTTTCAGATGACGTCC
CCATGGTGATAGCCTGAAAGAGCTTTCCTCACTAGAAACCAAATGGTGTAAATATTTTATTTGATAAAGATAGTT
GATGGTTTATTTTAAAAGATGCACTTTGAGTTGCAATATGTTATTTTTATATGGGCCAAAAACAAAAAACAAAAA
AAAAAA
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FIGURE 325

MATRSSRRESRLPFLFTLVALLPPGALCEVWTQRLHGGSAPLPQDRGFLVVQGDPRELRLWARGDARGASRADEK
PLRRKRSAALQPEPIKVYGQVSLNDSHNQMVVHWAGEKSNVIVALARDSLALARPKSSDVYVSYDYGKSFKKISD
KLNFGLGNRSEAVIAQFYHSPADNKRYIFADAYAQYLWITFDFCNTLQGFSIPFRAADLLLHSKASNLLLGFDRS
HPNKQLWKSDDFGQTWIMIQEHVKSFSWGIDPYDKPNTIYIERHEPSGYSTVFRSTDFFQSRENQEVILEEVRDF
QLRDKYMFATKVVHLLGSEQQSSVQLWVSFGRKPMRAAQFVTRHPINEYYIADASEDQVFVCVSHSNNRTNLYIS
EAEGLKFSLSLENVLYYSPGGAGSDTLVRYFANEPFADFHRVEGLQGVYIATLINGSMNEENMRSVITFDKGGTW
EFLQAPAFTGYGEKINCELSQGCSLHLAQRLSQLLNLQLRRMPILSKESAPGLIIATGSVGKNLASKTNVYISSS
AGARWREALPGPHYYTWGDHGGIITAIAQGMETNELKYSTNEGETWKTFIFSEKPVFVYGLLTEPGEKSTVFTIF
GSNKENVHSWLILQVNATDALGVPCTENDYKLWSPSDERGNECLLGHKTVFKRRTPHATCFNGEDFDRPVVVSNC
SCTREDYECDFGFKMSEDLSLEVCVPDPEFSGKSYSPPVPCPVGSTYRRTRGYRKISGDTCSGGDVEARLEGELV
PCPLAEENEFILYAVRKSIYRYDLASGATEQLPLTGLRAAVALDFDYEHNCLYWSDLALDVIQRLCLNGSTGQEV
IINSGLETVEALAFEPLSQLLYWVDAGFKKIEVANPDGDFRLTIVNSSVLDRPRALVLVPQEGVMFWTDWGDLKP
GIYRSNMDGSAAYHLVSEDVKWPNGISVDDQWIYWTDAYLECIERITFSGQQRSVILDNLPHPYAIAVFKNEIYW
DDWSQLSIFRASKYSGSQMEILANQLTGLMDMKIFYKGKNTGSNACVPRPCSLLCLPKANNSRSCRCPEDVSSSV
LPSGDLMCDCPQGYQLKNNTCVKEENTCLRNQYRCSNGNCINSIWWCDFDNDCGDMSDERNCPTTICDLDTQFRC
QESGTCIPLSYKCDLEDDCGDNSDESHCEMHQCRSDEYNCSSGMCIRSSWVCDGDNDCRDWSDEANCTAIYHTCE
ASNFQCRNGHCIPQRWACDGDTDCQDGSDEDPVNCEKKCNGFRCPNGTCIPSSKHCDGLRDCSDGSDEQHCEPLC
THFMDFVCKNRQQCLFHSMVCDGIIQCRDGSDEDAAFAGCSQDPEFHKVCDEFGFQCQNGVCISLIWKCDGMDDC
GDYSDEANCENPTEAPNCSRYFQFRCENGHCIPNRWKCDRENDCGDWSDEKDCGDSHILPFSTPGPSTCLPNYYR
CSSGTCVMDTWVCDGYRDCADGSDEEACPLLANVTAASTPTQLGRCDRFEFECHQPKTCIPNWKRCDGHQDCQDG
RDEANCPTHSTLTCMSREFQCEDGEACIVLSERCDGFLDCSDESDEKACSDELTVYKVQNLQWTADFSGDVTLTW
MRPKKMPSASCVYNVYYRVVGESIWKTLETHSNKTNTVLKVLKPDTTYQVKVQVQCLSKAHNTNDFVTLRTPEGL
PDAPRNLQLSLPREAEGVIVGHWAPPIHTHGLIREYIVEYSRSGSKMWASQRAASNFTEIKNLLVNTLYTVRVAA
VTSRGIGNWSDSKSITTIKGKVIPPPDIHIDSYGENYLSFTLTMESDIKVNGYVVNLFWAFDTHKQERRTLNFRG
SILSHKVGNLTAHTSYEISAWAKTDLGDSPLAFEHVMTRGVRPPAPSLKAKAINQTAVECTWTGPRNVVYGIFYA
TSFLDLYRNPKSLTTSLHNKTVIVSKDEQYLFLVRVVVPYQGPSSDYVVVKMIPDSRLPPRHLHVVHTGKTSVVI
KWESPYDSPDQDLLYAIAVKDLIRKTDRSYKVKSRNSTVEYTLNKLEPGG

FIGURE 326A

CACGTTGGGTGACATAATGGGGTTTTTTTAATTATAGATTCACACTGCATTTATTCATCACCCCTGTCCTCTCAT
CCATAACTCAAATTTACTACCAGCAACACAAAATACAAAGATGTGTCCAGTTTCACTACAGCTCTTCGCGTTTAC
AAGTGTCGAGCGCTTGCTTTCGGAACGCCCTTGTGATTGGCCGAGCCAATGCCAGTGACATCAACCAACTTACTT
TTGATTGGAAGGCTGGTTGCTGGGACTGTAGCGTTTGCAGGAAGTCACTTAACTGTTTGGGAGCTGGAAAACCGA
AGCTGAAGTTCTCTTTTGCCATAGGAACGAGCGCAACTGACTAGGAAAGATGTGTCCCAAAGCTCCGCAAGCTGG
AACGTGAGCCAGGAGGCCCGGACCGGCCACGGGACCGCGAGGCACTCCGAAAGTGTGCGGCTGCCCCTTCCCTGC
CTCCCAGCTGTTACCCTTTTAAATGTCAGTGTTCGAGGCTGTAGGGGTAGCACGAGGCAGCGAAACGGAACAGTC
GGATTGGCCGCACGCCTCAGTTCTAGACGCACCTCTCCACCGAAGCCGTTCTGACTGGCAGGGGGAGAAAGTAAA
CAGAGTTGAATCACCCTCCCCACTGGCCAATTGGAGGGGGTTTGGTTTGTGACGTGATGGGATTCTGCGAAATTG
TTACTGAGCAAGAGAATGCCGGAACGTGCGGACCGGCCGGAGCAGGGGTTCAGAAGCCGTCAGTGGACTCGGGAA
AAAGTGTCTCTTAGACCTGGCGCTCGGCGGGGCCCTCGCCACCCGCGTCGGGGTGATCGGGTGAATGTCCTGGGG
CTTTGGCTCGACGGCGAGGCGGCCGAGGGCGTGCACCTCTCTTGCAGTTTCCTCTCCCAGCGCCTCGGGGGCGTT
TTCAGTCGAATAAACTTGCGACCGCCACGTGTGGCATCTTTCCAAGGGAGCCGGCTCAGAGGGGCCGGCGCGCCC
GTCGGGGGATCGCGGCCGGCGCGGGGCAGGGGCGGCGGCTAGAGGCGGCGGCGCGGCGGAGCCCGGGGCCGTGGA
TGCTGCGTGCGGAGGCGCTGCCGGTTACGTAAAGATGAGGGGCTGAGGTCGCCTCGGCGCTCCTGCGAGTCGGAA
GCGCCCCGCGCCCCGCCCCCTTGGCCGCCGCGCCGTGCCGGGCGGGCGGGTCGTCGTCCGAGGCCAGGGAGGGC
GAGCCGAACCTCCGCAGCCACCGCCAAGTTTGTCCGCGCCGCCTGGGCTGCCGTCGCCCGCACC**ATG**TCCGCGGC
CGCCTACATGGACTTCGTGGCTGCCCAGTGTCTGGTTTCCATTTCGAACCGCGCTGCGGTGCCGGAGCATGGGGT
CGCTCCGGACGCCGAGCGGCTGCGACTACCTGAGCGCGAGGTGACCAAGGAGCACGGTGACCCGGGGGGACACCTG
GAAGGATTACTGCACACTGGTCACCATCGCCAAGAGCTTGTTGGACCTGAACAAGTACCGACCCATCCAGACCCC
CTCCGTGTGCAGCGACAGTCTGGAAAGTCCAGATGAGGATATGGGATCCGACAGCGACGTGACCACCGAATCTGG
GTCGAGTCCTTCCCACAGCCCGGAGGAGAGACAGGATCCTGGCAGCGCGCCCAGCCCGCTCTCCCTCCTCCATCC
TGGAGTGGCTGCGAAGGGGAAACACGCCTCCGAAAAGAGGCACAAGTGCCCCTACAGTGGCTGTGGGAAAGTCTA
TGGAAAATCCTCCCATCTCAAAGCCCATTACAGAGTGCATACAGGTGAACGGCCCTTCCCCTGCACGTGGCCAGA
CTGCCTTAAAAAGTTCTCCCGCTCAGACGAGCTGACCCGCCACTACCGGACCCACACTGGGGAAAAGCAGTTCCG
CTGTCCGCTGTGTGAGAAGCGCTTCATGAGGAGTGACCACCTCACAAAGCACGCCCGGCGGCACACCGAGTTCCA
CCCCAGCATGATCAAGCGATCGAAAAAGGCGCTGGCCAACGCTTT**GTGA**GGTGCTGCCCGTGGAAGCCAGGGAGG
GATGGACCCCGAAAGGACAAAAGTACTCCCAGGAAACAGACGCGTGAAAACTGAGCCCCAGAAGAGGCACACTTG
ACGGCACAGGAAGTCACTGCTCTTTGGTCAATATTCTGATTTTCCTCTCCCTGCATTGTTTTTAAAAAGCACATT
GTAGCCTAAGATCAAAGTCAACAACACTCGGTCCCCTTGAAGAGGCAACTCTCTGAACCCGTCTCTGACTGTTGG
AGGGAAGGCAAATGCTTTTGGGTTTTTTGGTTTTTGTTTTTGTTTTTTTTTCTCCTTTTATTTTTTTGCGGGGGA
GGGTAGGGAGTGGGTGGGGGGGAGGGGGTAAGGCCAAGACTGGGTAGATTTTAAAGATTCAACACTGGTGTACAT
ATGTCCGCTGGGTGAGTTGACCTGTGGCCTCGCACAGTGATTCTAGGCCCTTTATGCTTGCTGTCTCTCAGAATT
GTTTTCTTACCTTTTAATGTAATGACGAGTGTGCTTCAGTTTGTTTAGCAAAACCACTCTCTTGAATCACGTTAA
CTTTTGAGATTAAAAAAAAAAACGCCATAGCACAGCTGTCTTTATGCAAGCAAGAGCACATCTACTCCAGCATGA
TCTGTCATCTAAAGACTTGAAAACAAAAAACAGTTACTTATAGTCAATGGGTAAGCAGAGTCTGAATTTATACTA
ATCAAGACAAACCTTTGAAAGGTTACACTAAGTACAGAACTTTTAAACCTTGCTTTGTATGAGTTGTACTTTTTG
AACATAAGCTGCACTTTTATTTTCTAATGCAGAGGATGAATAAGTTAAATACATGCTTTGAGGATAGAAGCAGAT
GTTCTGTTTGGCACCACGTTATAATCTGCTTATTTTACAATATACACGTTTCCCTAAGAAATCATGCGCAGAGAT
GTGAGGGCAGAATATACACAACAGATGCTGAAGGAGAAGGAGGGTAGTGTTTTGCAAAAGAAAAAGAAAAGAACC
AACAGAATTTTAACTCTATTAACTTTTCCAAATTTTCCTATGCTTTTAGTTAACATCATTATTGTATCCTAATGC
CACTAGGGGAGAGAGCTTTTGACTCTGTTGGGTTTTATTTGAATGTGTGCATAACAGTAATGAGATCTGGAAACA
CCTATTTTTTGGGGAAAAGGTTTGTTGGTCTCCTTCCTGTGTTCCTACAAAACTCCCACTCTCAGGTGCAAGAG
TTATGTAGAAGGAAAGGGAGCTGAAATAGGAACAGAAAAATCAACCCCTATAACTAGTGAACACCAAGGGAAAAT
ACCACAATGATTTCAGAGGAGACTCTGCAAAATCGTCCCTTGTGGAGAATGCAGGCAACATGGAATACTACGAAT
GAAATCACATCACTGTATCTTTTACATCAATAGCCTCACCACTAATATATCTTGTATCTAGGTGTCTATAATGGC
TGAAACCACTACATCCATCTATGCCATTTACCTGAAAACTTAACTGTGGCCTTTATGAGGCCAGAAAAGTGAACT
GAGTTTTGTAGTTAAGACCTCAAATGAGGGGAGTCAGCAGTGATCATGGGGGAAATGTTTACATTTTTTTTTTCT

FIGURE 326B

TCAGAAGTAACGCTTTCTGATGATTTTATCTGATATTTAAAACAGGGAGCTATGGTGCACTCTAGTTTATACTTG
CGCTCTGAAATGTGTAAACATAGGGTGCCTACCTATTTCACCTGACCCATACTCGTTTCTGATTCAGAATCAGTG
TGGGCTCCTGCAGTGGGCGCGGGTCACGGCTGACTCCAACTTCCAATACAACAGCCATCACTAGCACAGTGTTTT
TTTGTTTAACCAACGTAGTGTTATTAGTAGTTCTATAAAGAGAACTGCTTTTAACATTAGGGACTGGGAGCAGTC
CATGGGATAAAAAGGAAAGTGTTTTCTCACGAGAAAACATGTCAGGAAAAATAAAGAACACTTTCTACCTCTGTT
TCAGATTTTTGAAACACTTATTTTAAACCAAATTTTAATTTCTGTGTCCAAAATAAGTTTTAAGGACATCTGTTC
TTCCATACGAAATAGGTTAGGCTGCCTATTTCTCACTGAGCTCATGGAATGGTTCTGCTTATGATACTCTGCACG
CTGCCTTTTAGTGAGTGAGGAGTTTGGGGTTGCCTAGCACTTGCTAACTTGTAAAAAGTCATCTTTCCCTCACAG
AAAGAAACGAAAGAAAGCAAAGCAAAGTCAGTGAAAGACAATCTTTATAGTTTCAGGAGTAAATCTAAATGTGGC
TTTTGTCAAGCACTTAGATGGATATAAATGCAGCAACTTGTTTTAAAAAAATGCACATTTACTTCCCAAAAAAGT
TGTTACTTGCCTTTTCAAGTGTGACAAACTCACATTTGATATTCTCTTATATGTTATAGTAATGTAACGTATAAA
CTCAAGCCTTTTTATTCTTTGTGATTAAATCCTGTTTTAAAATGTCACAAAACAGGAACCAGCATTCTAATTAGA
TTTACTATATCAAGATATGGTTCAAATAGGACTACTAGAGTTCATTGAACACTAAAACTATGAAACAATTACTTT
TTATATTAAAAAGACCATGGATTTAACTTATGAAAATCCAAATGCAGGATAGTAATTTTTGTTTACTTTTTTAAC
CAAACTGAATTTTTGAAAGACTATTGCAGGTGTTTAAAAAGAAAGAAAGTTGTTTATCTAATACTGTAAGTAG
TTGTCATATTCTGGAAAATTTAATAGTTTTAGAGTTAAGATATCTCCTCTCTTTGGTTAGGGAAGAAGAAAGCCC
TTCACCATTGTGGAATGATGCCCTGGCTTTAAGGTTTAGCTCCACATCATGCTTCTCTT

FIGURE 327

MSAAAYMDFVAAQCLVSISNRAAVPEHGVAPDAERLRLPEREVTKEHGDPGDTWKDYCTLVTIAKSLLDLNKYRP
IQTPSVCSDSLESPDEDMGSDSDVTTESGSSPSHSPEERQDPGSAPSPLSLLHPGVAAKGKHASEKRHKCPYSGC
GKVYGKSSHLKAHYRVHTGERPFPCTWPDCLKKFSRSDELTRHYRTHTGEKQFRCPLCEKRFMRSDHLTKHARRH
TEFHPSMIKRSKKALANAL

FIGURE 328A

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CACGTTGGGTGACATAATGGGGTTTTTTTAATTATAGATTCACACTGCATTTATTCATCACCCCTGTCCTCTCAT
CCATAACTCAAATTTACTACCAGCAACACAAAATACAAAGATGTGTCCAGTTTCACTACAGCTCTTCGCGTTTAC
AAGTGTCGAGCGCTTGCTTTCGGAACGCCCTTGTGATTGGCCGAGCCAATGCCAGTGACATCAACCAACTTACTT
TTGATTGGAAGGCTGGTTGCTGGGACTGTAGCGTTTGCAGGAAGTCACTTAACTGTTTGGGAGCTGGAAAACCGA
AGCTGAAGTTCTCTTTTGCCATAGGAACGAGCGCAACTGACTAGGAAAGATGTGTCCCAAAGCTCCGCAAGCTGG
AACGTGAGCCAGGAGGCCCGGACCGGCCACGGGACCGCGAGGCACTCCGAAAGTGTGCGGCTGCCCCTTCCCTGC
CTCCCAGCTGTTACCCTTTTAAATGTCAGTGTTCGAGGCTGTAGGGGTAGCACGAGGCAGCGAAACGGAACAGTC
GGATTGGCCGCACGCCTCAGTTCTAGACGCACCTCTCCACCGAAGCCGTTCTGACTGGCAGGGGGAGAAAGTAAA
CAGAGTTGAATCACCCTCCCCACTGGCCAATTGGAGGGGGTTTGGTTTGTGACGTGATGGGATTCTGCGAAATTG
TTACTGAGCAAGAGAATGCCGGAACGTGCGGACCGGCCGGAGCAGGGGTTCAGAAGCCGTCAGTGGACTCGGGAA
AAAGTGTCTCTTAGACCTGGCGCTCGGCGGGGCCCTCGCCACCCGCGTCGGGGTGATCGGGTGAATGTCCTGGGG
CTTTGGCTCGACGGCGAGGCGGCCGAGGGCGTGCACCTCTCTTGCAGTTTCCTCTCCCAGCGCCTCGGGGGCGTT
TTCAGTCGAATAAACTTGCGACCGCCACGTGTGGCATCTTTCCAAGGGAGCCGGCTCAGAGGGGCCGGCGCGCCC
GTCGGGGGATCGCGGCCGGCGCGGGGCAGGGGCGGCGGCTAGAGGCGGCGGCGCGGCGGAGCCCGGGGCCGTGGA
TGCTGCGTGCGGAGGCGCTGCCGGTTACGTAAAGATGAGGGGCTGAGGTCGCCTCGGCGCTCCTGCGAGTCGGAA
GCGCCCCGCGCCCCCGCCCCCTTGGCCGCCGCGCCGTGCCGGGCGGGCGGGTCGTCGTCCGAGGCCAGGGAGGGC
GAGCCGAACCTCCGCAGCCACCGCCAAGTTTGTCCGCGCCGCCTGGGCTGCCGTCGCCCGCACC**ATG**TCCGCGGC
CGCCTACATGGACTTCGTGGCTGCCCAGTGTCTGGTTTCCATTTCGAACCGCGCTGCGGTGCCGGAGCATGGGGT
CGCTCCGGACGCCGAGCGGCTGCGACTACCTGAGCGCGAGGTGACCAAGGAGCACGGTGACCCGGGGGGACACCTG
GAAGGATTACTGCACACTGGTCACCATCGCCAAGAGCTTGTTGGACCTGAACAAGTACCGACCCATCCAGACCCC
CTCCGTGTGCAGCGACAGTCTGGAAAGTCCAGATGAGGATATGGGATCCGACAGCGACGTGACCACCGAATCTGG
GTCGAGTCCTTCCCACAGCCCGGAGGAGAGACAGGATCCTGGCAGCGCGCCCAGCCCGCTCTCCCTCCTCCATCC
TGGAGTGGCTGCGAAGGGGAAACACGCCTCCGAAAAGAGGCACAAGTGCCCCTACAGTGGCTGTGGGAAAGTCTA
TGGAAAATCCTCCCATCTCAAAGCCCATTACAGAGTGCATACAGGTGAACGGCCCTTCCCCTGCACGTGGCCAGA
CTGCCTTAAAAAGTTCTCCCGCTCAGACGAGCTGACCCGCCACTACCGGACCCACACTGGGGAAAAGCAGTTCCG
CTGTCCGCTGTGTGAGAAGCGCTTCATGAGGAGTGACCACCTCACAAAGCACGCCCGGCGGCACACCGAGTTCCA
CCCCAGCATGATCAAGCGATCGAAAAAGGCGCTGGCCAACGCTTTG**TGA**GGTGCTGCCCGTGGAAGCCAGGGAGG
GATGGACCCCGAAAGGACAAAGTACTCCCAGGAAACAGACGCGTGAAAACTGAGCCCCAGAAGAGGCACACTTG
ACGGCACAGGAAGTCACTGCTCTTTGGTCAATATTCTGATTTTCCTCTCCCTGCATTGTTTTAAAAAGCACATT
GTAGCCTAAGATCAAAGTCAACAACACTCGGTCCCCTTGAAGAGGCAACTCTCTGAACCCGTCTCTGACTGTTGG
AGGGAAGGCAAATGCTTTTGGGTTTTTTGGTTTTTGTTTTTGTTTTTTTTCTCCTTTTATTTTTTTGCGGGGGA
GGGTAGGGAGTGGGTGGGGGGGAGGGGGTAAGGCCAAGACTGGGTAGATTTTAAAGATTCAACACTGGTGTACAT
ATGTCCGCTGGGTGAGTTGACCTGTGGCCTCGCACAGTGATTCTAGGCCCTTTATGCTTGCTGTCTCTCAGAATT
GTTTTCTTACCTTTTAATGTAATGACGAGTGTGCTTCAGTTTGTTTAGCAAACCACTCTCTTGAATCACGTTAA
CTTTTGAGATTAAAAAAAAAAACGCCATAGCACAGCTGTCTTTATGCAAGCAAGAGCACATCTACTCCAGCATGA
TCTGTCATCTAAAGACTTGAAAACAAAAAACAGTTACTTATAGTCAATGGGTAAGCAGAGTCTGAATTTATACTA
ATCAAGACAAACCTTTGAAAGGTTACACTAAGTACAGAACTTTTAAACCTTGCTTTGTATGAGTTGTACTTTTTG
AACATAAGCTGCACTTTTATTTTCTAATGCAGAGGATGAATAAGTTAAATACATGCTTTGAGGATAGAAGCAGAT
GTTCTGTTTGGCACCACGTTATAATCTGCTTATTTTACAATATACGTTTCCCTAAGAAATCATGCGCAGAGAT
GTGAGGGCAGAATATACACAACAGATGCTGAAGGAGAAGGAGGGTAGTGTTTTGCAAAAGAAAAGAAAAGAACC
AACAGAATTTTAACTCTATTAACTTTTCCAAATTTTCCTATGCTTTTAGTTAACATCATTATTGTATCCTAATGC
CACTAGGGGAGAGAGCTTTTGACTCTGTTGGGTTTTATTTGAATGTGTGCATAACAGTAATGAGATCTGGAAACA
CCTATTTTTTGGGGAAAAAGGTTTGTTGGTCTCCTTCCTGTGTTCCTACAAAACTCCCACTCTCAGGTGCAAGAG
TTATGTAGAAGGAAAGGGAGCTGAAATAGGAACAGAAAAATCAACCCCTATAACTAGTGAACACCAAGGGAAAAT
ACCACAATGATTTCAGAGGAGACTCTGCAAAATCGTCCCTTGTGGAGAATGCAGGCAACATGGAATACTACGAAT
GAAATCACATCACTGTATCTTTTACATCAATAGCCTCACCACTAATATATCTTGTATCTAGGTGTCTATAATGGC
TGAAACCACTACATCCATCTATGCCATTTACCTGAAAACTTAACTGTGGCCTTTATGAGGCCAGAAAAGTGAACT
GAGTTTTGTAGTTAAGACCTCAAATGAGGGGAGTCAGCAGTGATCATGGGGGAAATGTTTACATTTTTTTTTTCT
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FIGURE 328B

TCAGAAGTAACGCTTTCTGATGATTTTATCTGATATTTAAAACAGGGAGCTATGGTGCACTCTAGTTTATACTTG
CGCTCTGAAATGTGTAAACATAGGGTGCCTACCTATTTCACCTGACCCATACTCGTTTCTGATTCAGAATCAGTG
TGGGCTCCTGCAGTGGGCGCGGGTCACGGCTGACTCCAACTTCCAATACAACAGCCATCACTAGCACAGTGTTTT
TTTGTTTAACCAACGTAGTGTTATTAGTAGTTCTATAAAGAGAACTGCTTTTAACATTAGGGACTGGGAGCAGTC
CATGGGATAAAAAGGAAAGTGTTTTCTCACGAGAAAACATGTCAGGAAAAATAAAGAACACTTTCTACCTCTGTT
TCAGATTTTTGAAACACTTATTTTAAACCAAATTTTAATTTCTGTGTCCAAAATAAGTTTTAAGGACATCTGTTC
TTCCATACGAAATAGGTTAGGCTGCCTATTTCTCACTGAGCTCATGGAATGGTTCTGCTTATGATACTCTGCACG
CTGCCTTTTAGTGAGTGAGGAGTTTGGGGTTGCCTAGCACTTGCTAACTTGTAAAAAGTCATCTTTCCCTCACAG
AAAGAAACGAAAGAAAGCAAAGCAAAGTCAGTGAAAGACAATCTTTATAGTTTCAGGAGTAAATCTAAATGTGGC
TTTTGTCAAGCACTTAGATGGATATAAATGCAGCAACTTGTTTTAAAAAAATGCACATTTACTTCCCAAAAAAGT
TGTTACTTGCCTTTTCAAGTGTGACAAACTCACATTTGATATTCTCTTATATGTTATAGTAATGTAACGTATAAA
CTCAAGCCTTTTTATTCTTTGTGATTAAATCCTGTTTTAAAATGTCACAAAACAGGAACCAGCATTCTAATTAGA
TTTACTATATCAAGATATGGTTCAAATAGGACTACTAGAGTTCATTGAACACTAAAACTATGAAACAATTACTTT
TTATATTAAAAAGACCATGGATTTAACTTATGAAAATCCAAATGCAGGATAGTAATTTTTGTTTACTTTTTTAAC
CAAACTGAATTTTTGAAAGACTATTGCAGGTGTTTAAAAAGAAAGAAAGTTGTTTATCTAATACTGTAAGTAG
TTGTCATATTCTGGAAAATTTAATAGTTTTAGAGTTAAGATATCTCCTCTCTTTGGTTAGGGAAGAAGAAAGCCC
TTCACCATTGTGGAATGATGCCCTGGCTTTAAGGTTTAGCTCCACATCATGCTTCTCTT

FIGURE 329

MSAAAYMDFVAAQCLVSISNRAAVPEHGVAPDAERLRLPEREVTKEHGDPGDTWKDYCTLVTIAKSLLDLNKYRP
IQTPSVCSDSLESPDEDMGSDSDVTTESGSSPSHSPEERQDPGSAPSPLSLLHPGVAAKGKHASEKRHKCPYSGC
GKVYGKSSHLKAHYRVHTGERPFPCTWPDCLKKFSRSDELTRHYRTHTGEKQFRCPLCEKRFMRSDHLTKHARRH
TEFHPSMIKRSKKALANAL

FIGURE 330

CACCGCGCAAGCGCATCCTGGCCTTTCTTCAGTCCCCACGTGCGATCCTTCCCGGCAACTTTTTCGAGAAAAATG
CCCAAATTCAAGGCGGCCCGTGGGGTGGGGGGTCAGGAAAAACATGCGCCCCTGGCCGATCAGATCCTGGCTGGG
AATGCGGTGCGGGCGGGGGTCCGGGAGAAGCGGCGGGGTCGCGGGACAGGAGAAGCGGAGGAAGAGTATGTGGGG
CCCCGGCTGAGCCGACGGATTTTGCAGCAAGCACGGCAGCAACAGGAGGAACTCGAGGCCGAGCATGGGACTGGG
GACAAGCCCGCGGCGCCGCGGGAACGCACCACGCGGCTGGGTCCAAGAATGCCTCAGGATGGATCAGATGACGAG
GACGAGGAGTGGCCCACCCTGGAGAAGGCTGCCACAATGACAGCAGCGGGCCATCATGCAGAGGTGGTTGTGGAC
CCTGAGGATGAGCGTGCCATAGAGATGTTC**ATG**AACAAGAACCCTCCTGCCAGGCGCACCCTGGCTGACATCATC
ATGGAGAAGCTGACTGAGAAGCAGACAGAGGTTGAGACAGTCATGTCAGAGGTGTCGGGCTTCCCTATGCCCCAG
CTGGACCCCCGGGTCCTAGAAGTGTACAGGGGGGTCCGGGAGGTATTATCTAAGTACCGCAGTGGAAAACTGCCC
AAGGCATTTAAGATCATCCCTGCACTCTCCAACTGGGAGCAAATCCTCTACGTCACAGAGCCGGAGGCCTGGACT
GCAGCTGCCATGTACCAGGCCACCAGGATTTTTGCCTCTAACCTGAAGGAACGCATGGCCCAGCGCTTCTACAAC
CTTGTCCTGCTCCCTCGAGTACGAGATGACGTTGCTGAATACAAACGACTCAACTTCCATCTCTACATGGCTCTC
AAGAAGGCCCTTTTCAAACCTGGAGCCTGGTTCAAAGGGATCCTGATTCCACTGTGCGAGTCTGGCACTTGTACC
CTCCGGGAAGCCATCATTGTGGGTAGCATCATCACCAAGTGCTCCATCCCTGTGTTGCACTCCAGTGCGGCCATG
CTGAAAATTGCTGAGATGGAATACAGCGGTGCCAACAGCATCTTCCTGCGACTGCTGCTGGATAAGAAGTATGCA
CTGCCTTACCGGGTGCTGGATGCCCTAGTCTTCCACTTCCTGGGGTTCCGGACAGAGAAGCGTGAACTGCCTGTG
CTGTGGCACCAGTGCCTCCTGACTTTGGTCCAGCGCTACAAGGCCGACTTGGCCACAGACCAGAAAGAGGCCCTC
TTAGAACTGCTCCGGCTGCAGCCCCATCCACAGCTATCGCCCGAAATCAGGCGTGAGCTTCAGAGTGCAGTCCCC
CGCGATGTGGAAGATGTTCCCATCACCGTGGAG**TGA**GGAAAACAGTCAGCTGTCCTGGCCAAAGGGGTTTGGAAG
GACACCAAGACCCCCGTTGGTGACTGAAGATGACACTGAGCTTTAATGGCTGAAGACCCAGATCAGGGCAGTGAC
AGATCACAGGGACATCTGTGGCTCCCAGTCCAGGACAGGAAGGACTGAGGGTCTGGCTGGTTCCCTCTTCCATTC
TAGGCCCTTATCCCTGTTTAGTTCTGAGAGCCAACTTGAGATACCATATGCTAGCATTCCCAGTCCCCAGCTGGG
GCTTGGTGTGAGTACTTTTTCTATGGCTATTGTGTCAGGTCACTGTGGATAAAGGCAAAGACAGATATTTATTGA
AAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 331

MNKNPPARRTLADIIMEKLTEKQTEVETVMSEVSGFPMPQLDPRVLEVYRGVREVLSKYRSGKLPKAFKIIPALS
NWEQILYVTEPEAWTAAAMYQATRIFASNLKERMAQRFYNLVLLPRVRDDVAEYKRLNFHLYMALKKALFKPGAW
FKGILIPLCESGTCTLREAIIVGSIITKCSIPVLHSSAAMLKIAEMEYSGANSIFLRLLLDKKYALPYRVLDALV
FHFLGFRTEKRELPVLWHQCLLTLVQRYKADLATDQKEALLELLRLQPHPQLSPEIRRELQSAVPRDVEDVPITV
E

FIGURE 332A

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GTTGGCCCCCGTTACTTTTCCTCTGGGAAATATGGCGCACGCTGGGAGAACAGGGTACGATAACCGGGAGATAGT
GATGAAGTACATCCATTATAAGCTGTCGCAGAGGGGCTACGAGTGGGATGCGGGAGATGTGGGCGCCGCGCCCCC
GGGGGCCGCCCCCGCGCCGGGCATCTTCTCCTCGCAGCCCGGGCACACGCCCCATACAGCCGCATCCCGGGACCC
GGTCGCCAGGACCTCGCCGCTGCAGACCCCGGCTGCCCCCGGCGCCGCCGCGGGGCCTGCGCTCAGCCCGGTGCC
ACCTGTGGTCCACCTGACCCTCCGCCAGGCCGGCGACGACTTCTCCCGCCGCTACCGCCGCGACTTCGCCGAGAT
GTCCAGGCAGCTGCACCTGACGCCCTTCACCGCGCGGGGACGCTTTGCCACGGTGGTGGAGGAGCTCTTCAGGGA
CGGGGTGAACTGGGGGAGGATTGTGGCCTTCTTTGAGTTCGGTGGGGTCATGTGTGTGGAGAGCGTCAACCGGGA
GATGTCGCCCCTGGTGGACAACATCGCCCTGTGGATGACTGAGTACCTGAACCGGCACCTGCACACCTGGATCCA
GGATAACGGAGGCTGGGATGCCTTTGTGGAACTGTACGGCCCCAGCATGCGGCCTCTGTTTGATTTCTCCTGGCT
GTCTCTGAAGACTCTGCTCAGTTTGGCCCTGGTGGGAGCTTGCATCACCCTGGGTGCCTATCTGGGCCACAAGTG
AAGTCAACATGCCTGCCCCAAACAAATATGCAAAAGGTTCACTAAAGCAGTAGAAATAATATGCATTGTCAGTGA
TGTTCCATGAAACAAAGCTGCAGGCTGTTTAAGAAAAAATAACACACATATAAACATCACACACACAGACAGACA
CACACACACAACAATTAACAGTCTTCAGGCAAAACGTCGAATCAGCTATTTACTGCCAAAGGGAAATATCATT
TATTTTTTACATTATTAAGAAAAAAAGATTTATTTATTTAAGACAGTCCCATCAAAACTCCTGTCTTTGGAAATC
CGACCACTAATTGCCAAGCACCGCTTCGTGTGGCTCCACCTGGATGTTCTGTGCCTGTAAACATAGATTCGCTTT
CCATGTTGTTGGCCGGATCACCATCTGAAGAGCAGACGGATGGAAAAAGGACCTGATCATTGGGGAAGCTGGCTT
TCTGGCTGCTGGAGGCTGGGGAGAAGGTGTTCATTCACTTGCATTTCTTTGCCCTGGGGGGCTGTGATATTAACAG
AGGGAGGGTTCCTGTGGGGGGGAAGTCCATGCCTCCCTGGCCTGAAGAAGAGACTCTTTGCATATGACTCACATGA
TGCATACCTGGTGGGAGGAAAAGAGTTGGGAACTTCAGATGGACCTAGTACCCACTGAGATTTCCACGCCGAAGG
ACAGCGATGGGAAAAATGCCCTTAAATCATAGGAAAGTATTTTTTTAAGCTACCAATTGTGCCGAGAAAAGCATT
TTAGCAATTTATACAATATCATCCAGTACCTTAAGCCCTGATTGTGTATATTCATATATTTTGGATACGCACCCC
CCAACTCCCAATACTGGCTCTGTCTGAGTAAGAAACAGAATCCTCTGGAACTTGAGGAAGTGAACATTTCGGTGA
CTTCCGCATCAGGAAGGCTAGAGTTACCCAGAGCATCAGGCCGCCACAAGTGCCTGCTTTTAGGAGACCGAAGTC
CGCAGAACCTGCCTGTGTCCCAGCTTGGAGGCCTGGTCCTGGAACTGAGCCGGGGCCCTCACTGGCCTCCTCCAG
GGATGATCAACAGGGCAGTGTGGTCTCCGAATGTCTGGAAGCTGATGGAGCTCAGAATTCCACTGTCAAGAAAGA
GCAGTAGAGGGGTGTGGCTGGGCCTGTCACCCTGGGGCCCTCCAGGTAGGCCCGTTTTCACGTGGAGCATGGGAG
CCACGACCCTTCTTAAGACATGTATCACTGTAGAGGGAAGGAACAGAGGCCCTGGGCCCTTCCTATCAGAAGGAC
ATGGTGAAGGCTGGGAACGTGAGGAGAGGCAATGGCCACGGCCCATTTTGGCTGTAGCACATGGCACGTTGGCTG
TGTGGCCTTGGCCCACCTGTGAGTTTAAAGCAAGGCTTTAAATGACTTTGGAGAGGGTCACAAATCCTAAAAGAA
GCATTGAAGTGAGGTGTCATGGATTAATTGACCCCTGTCTATGGAATTACATGTAAAACATTATCTTGTCACTGT
AGTTTGGTTTTATTTGAAAACCTGACAAAAAAAAAGTTCCAGGTGTGGAATATGGGGGTTATCTGTACATCCTGG
GGCATTAAAAAAAAAATCAATGGTGGGGAACTATAAAGAAGTAACAAAAGAAGTGACATCTTCAGCAAATAAACT
AGGAAATTTTTTTTTCTTCCAGTTTAGAATCAGCCTTGAAACATTGATGGAATAACTCTGTGGCATTATTGCATT
ATATACCATTTATCTGTATTAACTTTGGAATGTACTCTGTTCAATGTTTAATGCTGTGGTTGATATTTCGAAAGC
TGCTTTAAAAAAATACATGCATCTCAGCGTTTTTTTGTTTTTAATTGTATTTAGTTATGGCCTATACACTATTTG
TGAGCAAAGGTGATCGTTTTCTGTTTGAGATTTTTATCTCTTGATTCTTCAAAAGCATTCTGAGAAGGTGAGATA
AGCCCTGAGTCTCAGCTACCTAAGAAAAACCTGGATGTCACTGGCCACTGAGGAGCTTTGTTCAACCAAGTCAT
GTGCATTTCCACGTCAACAGAATTGTTTATTGTGACAGTTATATCTGTTGTCCCTTTGACCTTGTTTCTTGAAGG
TTTCCTCGTCCCTGGGCAATTCCGCATTTAATTCATGGTATTCAGGATTACATGCATGTTTGGTTAAACCCATGA
GATTCATTCAGTTAAAAATCCAGATGGCAAATGACCAGCAGATTCAAATCTATGGTGGTTTGACCTTTAGAGAGT
TGCTTTACGTGGCCTGTTTCAACACAGACCCACCCAGAGCCCTCCTGCCCTCCTTCCGCGGGGGCTTTCTCATGG
CTGTCCTTCAGGGTCTTCCTGAAATGCAGTGGTGCTTACGCTCCACCAAGAAAGCAGGAAACCTGTGGTATGAAG
CCAGACCTCCCCGGCGGGCCTCAGGGAACAGAATGATCAGACCTTTGAATGATTCTAATTTTTAAGCAAAATATT
ATTTTATGAAAGGTTTACATTGTCAAAGTGATGAATATGGAATATCCAATCCTGTGCTGCTATCCTGCCAAAATC
ATTTTAATGGAGTCAGTTTGCAGTATGCTCCACGTGGTAAGATCCTCCAAGCTGCTTTAGAAGTAACAATGAAGA
ACGTGGACGCTTTTAATATAAAGCCTGTTTTGTCTTCTGTTGTTGTTCAAACGGGATTCACAGAGTATTTGAAAA
ATGTATATATATTAAGAGGTCACGGGGGCTAATTGCTGGCTGGCTGCCTTTTGCTGTGGGGTTTTGTTACCTGGT
TTTAATAACAGTAAATGTGCCCAGCCTCTTGGCCCCAGAACTGTACAGTATTGTGGCTGCACTTGCTCTAAGAGT
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FIGURE 332B

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AGTTGATGTTGCATTTTCCTTATTGTTAAAAACATGTTAGAAGCAATGAATGTATATAAAAGCCTCAACTAGTCA
TTTTTTTCTCCTCTTCTTTTTTTTCATTATATCTAATTATTTTGCAGTTGGGCAACAGAGAACCATCCCTATTTT
GTATTGAAGAGGGATTCACATCTGCATCTTAACTGCTCTTTATGAATGAAAAAACAGTCCTCTGTATGTACTCCT
CTTTACACTGGCCAGGGTCAGAGTTAAATAGAGTATATGCACTTTCCAAATTGGGGACAAGGGCTCTAAAAAAAG
CCCCAAAAGGAGAAGAACATCTGAGAACCTCCTCGGCCCTCCCAGTCCCTCGCTGCACAAATACTCCGCAAGAGA
GGCCAGAATGACAGCTGACAGGGTCTATGGCCATCGGGTCGTCTCCGAAGATTTGGCAGGGGCAGAAAACTCTGG
CAGGCTTAAGATTTGGAATAAAGTCACAGAATCAAGGAAGCACCTCAATTTAGTTCAAACAAGACGCCAACATTC
TCTCCACAGCTCACTTACCTCTCTGTGTTCAGATGTGGCCTTCCATTTATATGTGATCTTTGTTTTATTAGTAAA
TGCTTATCATCTAAAGATGTAGCTCTGGCCCAGTGGGAAAAATTAGGAAGTGATTATAAATCGAGAGGAGTTATA
ATAATCAAGATTAAATGTAAATAATCAGGGCAATCCCAACACATGTCTAGCTTTCACCTCCAGGATCTATTGAGT
GAACAGAATTGCAAATAGTCTCTATTTGTAATTGAACTTATCCTAAAACAAATAGTTTATAAATGTGAACTTAAA
CTCTAATTAATTCCAACTGTACTTTTAAGGCAGTGGCTGTTTTAGACTTTCTTATCACTTATAGTTAGTAATGT
ACACCTACTCTATCAGAGAAAAACAGGAAAGGCTCGAAATACAAGCCATTCTAAGGAAATTAGGGAGTCAGTTGA
AATTCTATTCTGATCTTATTCTGTGGTGTCTTTTGCAGCCCAGACAAATGTGGTTACACACTTTTTAAGAAATAC
AATTCTACATTGTCAAGCTTATGAAGGTTCCAATCAGATCTTTATTGTTATTCAATTTGGATCTTTCAGGGATTT
TTTTTTTAAATTATTATGGGACAAAGGACATTTGTTGGAGGGGTGGGAGGGAGGAACAATTTTTAAATATAAAAC
ATTCCCAAGTTTGGATCAGGGAGTTGGAAGTTTTCAGAATAACCAGAACTAAGGGTATGAAGGACCTGTATTGGG
GTCGATGTGATGCCTCTGCGAAGAACCTTGTGTGACAAATGAGAAACATTTTGAAGTTTGTGGTACGACCTTTAG
ATTCCAGAGACATCAGCATGGCTCAAAGTGCAGCTCCGTTTGGCAGTGCAATGGTATAAATTTCAAGCTGGATAT
GTCTAATGGGTATTTAAACAATAAATGTGCAGTTTTAACTAACAGGATATTTAATGACAACCTTCTGGTTGGTAG
GGACATCTGTTTCTAAATGTTTATTATGTACAATACAGAAAAAAATTTTATAAAATTAAGCAATGTGAAACTGAA
TTGGAGAGTGATAATACAAGTCCTTTAGTCTTACCCAGTGAATCATTCTGTTCCATGTCTTTGGACAACCATGAC
CTTGGACAATCATGAAATATGCATCTCACTGGATGCAAAGAAAATCAGATGGAGCATGAATGGTACTGTACCGGT
TCATCTGGACTGCCCCAGAAAAATAACTTCAAGCAAACATCCTATCAACAACAAGGTTGTTCTGCATACCAAGCT
GAGCACAGAAGATGGGAACACTGGTGGAGGATGGAAAGGCTCGCTCAATCAAGAAAATTCTGAGACTATTAATAA
ATAAGACTGTAGTGTAGATACTGAGTAAATCCATGCACCTAAACCTTTTGGAAAATCTGCCGTGGGCCCTCCAGA
TAGCTCATTTCATTAAGTTTTTCCCTCCAAGGTAGAATTTGCAAGAGTGACAGTGGATTGCATTTCTTTTGGGGA
AGCTTTCTTTTGGTGGTTTTGTTTATTATACCTTCTTAAGTTTTCAACCAAGGTTTGCTTTTGTTTTGAGTTACT
GGGGTTATTTTTGTTTTAAATAAAAATAAGTGTACAATAAGTGTTTTTGTATTGAAAGCTTTTGTTATCAAGATT
TTCATACTTTTACCTTCCATGGCTCTTTTTAAGATTGATACTTTTAAGAGGTGGCTGATATTCTGCAACACTGTA
CACATAAAAAATACGGTAAGGATACTTTACATGGTTAAGGTAAAGTAAGTCTCCAGTTGGCCACCATTAGCTATA
ATGGCACTTTGTTTGTGTTGTTGGAAAAAGTCACATTGCCATTAAACTTTCCTTGTCTGTCTAGTTAATATTGTG
AAGAAAAATAAAGTACAGTGTGAGATACTG
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FIGURE 333

MAHAGRTGYDNREIVMKYIHYKLSQRGYEWDAGDVGAAPPGAAPAPGIFSSQPGHTPHPAASRDPVARTSPLQTP
AAPGAAAGPALSPVPPVVHLALRQAGDDFSRRYRGDFAEMSSQLHLTPFTARGRFATVVEELFRDGVNWGRIVAF
FEFGGVMCVESVNREMSPLVDNIALWMTEYLNRHLHTWIQDNGGWVGASGDVSLG

FIGURE 334

GAGTGACTCCACCGCCCGGAGCAGCGGTGCAGGACGCGCGTCTCCGCCGCCCGCGGTGACTTCTGCCTGCGCTCC
TTCTCTGAACGCTCACTTCCGAGGAGACGCCGACG**ATG**AAGACACCGTGGAAGGTTCTTCTGGGACTGCTGGGTG
CTGCTGCGCTTGTCACCATCATCACCGTGCCCGTGGTTCTGCTGAACAAAGGCACAGATGATGCTACAGCTGACA
GTCGCAAAACTTACACTCTAACTGATTACTTAAAAAATACTTATAGACTGAAGTTATACTCCTTAAGATGGATTT
CAGATCATGAATATCTCTACAAACAAGAAAATAATATCTTGGTATTCAATGCTGAATATGGAAACAGCTCAGTTT
TCTTGGAGAACAGTACATTTGATGAGTTTGGACATTCTATCAATGATTATTCAATATCTCCTGATGGGCAGTTTA
TTCTCTTAGAATACAACTACGTGAAGCAATGGAGGCATTCCTACACAGCTTCATATGACATTTATGATTTAAATA
AAAGGCAGCTGATTACAGAAGAGAGGATTCCAAACAACACACAGTGGGTCACATGGTCACCAGTGGGTCATAAAT
TGGCATATGTTTGGAACAATGACATTTATGTTAAAATTGAACCAAATTTACCAAGTTACAGAATCACATGGACGG
GGAAAGAAGATATAATATATAATGGAATAACTGACTGGGTTTATGAAGAGGAAGTCTTCAGTGCCTACTCTGCTC
TGTGGTGGTCTCCAAACGGCACTTTTTTAGCATATGCCCAATTTAACGACACAGAAGTCCCACTTATTGAATACT
CCTTCTACTCTGATGAGTCACTGCAGTACCCAAAGACTGTACGGGTTCCATATCCAAAGGCAGGAGCTGTGAATC
CAACTGTAAAGTTCTTTGTTGTAAATACAGACTCTCTCAGCTCAGTCACCAATGCAACTTCCATACAAATCACTG
CTCCTGCTTCTATGTTGATAGGGGATCACTACTTGTGTGATGTGACATGGGCAACACAAGAAAGAATTTCTTTGC
AGTGGCTCAGGAGGATTCAGAACTATTCGGTCATGGATATTTGTGACTATGATGAATCCAGTGGAAGATGGAACT
GCTTAGTGGCACGGCAACACATTGAAATGAGTACTACTGGCTGGGTTGGAAGATTTAGGCCTTCAGAACCTCATT
TTACCCTTGATGGTAATAGCTTCTACAAGATCATCAGCAATGAAGAAGGTTACAGACACATTTGCTATTTCCAAA
TAGATAAAAAAGACTGCACATTTATTACAAAAGGCACCTGGGAAGTCATCGGGATAGAAGCTCTAACCAGTGATT
ATCTATACTACATTAGTAATGAATATAAAGGAATGCCAGGAGGAAGGAATCTTTATAAAATCCAACTTAGTGACT
ATACAAAAGTGACATGCCTCAGTTGTGAGCTGAATCCGGAAAGGTGTCAGTACTATTCTGTGTCATTCAGTAAAG
AGGCGAAGTATTATCAGCTGAGATGTTCCGGTCCTGGTCTGCCCCTCTATACTCTACACAGCAGCGTGAATGATA
AAGGGCTGAGAGTCCTGGAAGACAATTCAGCTTTGGATAAAATGCTGCAGAATGTCCAGATGCCCTCCAAAAAAC
TGGACTTCATTATTTTGAATGAAACAAAATTTTGGTATCAGATGATCTTGCCTCCTCATTTTGATAAATCCAAGA
AATATCCTCTACTATTAGATGTGTATGCAGGCCCATGTAGTCAAAAAGCAGACACTGTCTTCAGACTGAACTGGG
CCACTTACCTTGCAAGCACAGAAAACATTATAGTAGCTAGCTTTGATGGCAGAGGAAGTGGTTACCAAGGAGATA
AGATCATGCATGCAATCAACAGAAGACTGGGAACATTTGAAGTTGAAGATCAAATTGAAGCAGCCAGACAATTTT
CAAAAATGGGATTTGTGGACAACAAACGAATTGCAATTTGGGGCTGGTCATATGGAGGGTACGTAACCTCAATGG
TCCTGGGATCGGGAAGTGGCGTGTTCAAGTGTGGAATAGCCGTGGCGCCTGTATCCCGGTGGGAGTACTATGACT
CAGTGTACACAGAACGTTACATGGGTCTCCCAACTCCAGAAGACAACCTTGACCATTACAGAAATTCAACAGTCA
TGAGCAGAGCTGAAAATTTTAAACAAGTTGAGTACCTCCTTATTCATGGAACAGCAGATGATAACGTTCACTTTC
AGCAGTCAGCTCAGATCTCCAAAGCCCTGGTCGATGTTGGAGTGGATTTCCAGGCAATGTGGTATACTGATGAAG
ACCATGGAATAGCTAGCAGCACAGCACACCAACATATATATACCCACATGAGCCACTTCATAAAACAATGTTTCT
CTTTACCT**TAG**CACCTCAAAATACCATGCCATTTAAAGCTTATTAAAACTCATTTTGTTTTCATTATCTCAAAA
CTGCACTGTCAAGATGATGATGATCTTTAAAATACACACTCAAATCAAGAAACTTAAGGTTACCTTTGTTCCCAA
ATTTCATACCTATCATCTTAAGTAGGGACTTCTGTCTTCACAACAGATTATTACCTTACAGAAGTTTGAATTATC
CGGTCGGGTTTTATTGTTTAAAATCATTTCTGCATCAGCTGCTGAAACAACAAATAGGAATTGTTTTTATGGAGG
CTTTGCATAGATTCCCTGAGCAGGATTTTAATCTTTTTCTAACTGGACTGGTTCAAATGTTGTTCTCTTCTTTAA
AGGGATGGCAAGATGTGGGCAGTGATGTCACTAGGGCAGGGACAGGATAAGAGGGATTAGGGAGAGAAGATAGCA
GGGCATGGCTGGGAACCCAAGTCCAAGCATACCAACACGAGCAGGCTACTGTCAGCTCCCCTCGGAGAAGAGCTG
TTCACAGCCAGACTGGCACAGTTTTCTGAGAAGACTATTCAAACAGTCTCAGGAAATCAAATATGCAAAGCACT
GACTTCTAAGTAAAACCACAGCAGTTGAAAAGACTCCAAAGAAATGTAAGGGAAACTGCCAGCAACGCAGGCCCC
CAGGTGCCAGTTATGGCTATAGGTGCTACAAAAACACAGCAAGGGTGATGGGAAAGCATTGTAAATGTGCTTTTA
AAAAAAAATACTGATGTTCCTAGTGAAAGAGGCAGCTTGAAACTGAGATGTGAACACATCAGCTTGCCCTGTTAA
AAGATGAAAATATTTGTATCACAAATCTTAACTTGAAGGAGTCCTTGCATCAATTTTTCTTATTTCATTTCTTTG
AGTGTCTTAATTAAAAGAATATTTTAACTTCCTTGGACTCATTTTAAAAAATGGAACATAAAATACAATGTTATG
TATTATTATTCCCATTCTACATACTATGGAATTTCTCCCAGTCATTTAATAAATGTGCCTTCATTTTTTC

FIGURE 335

MKTPWKVLLGLLGAAALVTIITVPVVLLNKGTDDATADSRKTYTLTDYLKNTYRLKLYSLRWISDHEYLYKQENN
ILVFNAEYGNSSVFLENSTFDEFGHSINDYSISPDGQFILLEYNYVKQWRHSYTASYDIYDLNKRQLITEERIPN
NTQWVTWSPVGHKLAYVWNNDIYVKIEPNLPSYRITWTGKEDIIYNGITDWVYEEEVFSAYSALWWSPNGTFLAY
AQFNDTEVPLIEYSFYSDESLQYPKTVRVPYPKAGAVNPTVKFFVVNTDSLSSVTNATSIQITAPASMLIGDHYL
CDVTWATQERISLQWLRRIQNYSVMDICDYDESSGRWNCLVARQHIEMSTTGWVGRFRPSEPHFTLDGNSFYKII
SNEEGYRHICYFQIDKKDCTFITKGTWEVIGIEALTSDYLYYISNEYKGMPGGRNLYKIQLSDYTKVTCLSCELN
PERCQYYSVSFSKEAKYYQLRCSGPGLPLYTLHSSVNDKGLRVLEDNSALDKMLQNVQMPSKKLDFIILNETKFW
YQMILPPHFDKSKKYPLLLDVYAGPCSQKADTVFRLNWATYLASTENIIVASFDGRGSGYQGDKIMHAINRRLGT
FEVEDQIEAARQFSKMGFVDNKRIAIWGWSYGGYVTSMVLGSGSGVFKCGIAVAPVSRWEYYDSVYTERYMGLPT
PEDNLDHYRNSTVMSRAENFKQVEYLLIHGTADDNVHFQQSAQISKALVDVGVDFQAMWYTDEDHGIASSTAHQH
IYTHMSHFIKQCFSLP

FIGURE 336

CGCGCGTCTCCGCCGCCCGCGTGACTTCTGCCTGCGCTCCTTCTCTGAACGCTCACTTCCGAGGAGACGCCGACG
ATGAAGACACCGTGGAAGATTCTTCTGGGACTGCTGGGTGCTGCTGCGCTTGTCACCATCATCACCGTGCCCGTG
GTTCTGCTGAACAAAGGCACAGATGATGCTACAGCTGACAGTCGCAAAACTTACACTCTAACTGATTACTTAAAA
AATACTTATAGACTGAAGTTATACTCCTTAAGATGGATTTCAGATCATGAATATCTCTACAAACAAGAAAATAAT
ATCTTGGTATTCAATGCTGAATATGGAAACAGCTCAGTTTTCTTGGAGAACAGTACATTTGATGAGTTTGGACAT
TCTATCAATGATTATTCAATATCTCCTGATGGGCAGTTATTCTCTTAGAATACAACTACGTGAAGCAATGGAGG
CATTCCTACACAGCTTCATATGACATTTATGATTTAAATAAAAGGCAGCTGATTACAGAAGAGAGGATTCCAAAC
AACACACAGTGGGTCACATGGTCACCAGTGGGTCATAAATTGGCATATGTTTGGAACAATGACATTTATGTTAAA
ATTGAACCAAATTTACCAAGTTACAGAATCACATGGACGGGGAAAGAAGATATAATATATAATGGAATAACTGAC
TGGGTTTATGAAGAGGAAGTCTTCAGTGCCTACTCTGCTCTGTGGTGGTCTCCAAACGGCACTTTTTTAGCATAT
GCCCAATTTAACGACACAGAAGTCCCACTTATTGAATACTCCTTCTACTCTGATGAGTCACTGCAGTACCCAAAG
ACTGTACGGGTTCCATATCCAAAGGCAGGAGCTGTGAATCCAACTGTAAAGTTCTTTGTTGTAAATACAGACTCT
CTCAGCTCAGTCACCAATGCAACTTCCATACAAATCACTGCTCCTGCTTCTATGTTGATAGGGGATCACTACTTG
TGTGATGTGACATGGGCAACACAAGAAAGAATTTCTTTGCAGTGGCTCAGGAGGATTCAGAACTATTCGGTCATG
GATATTTGTGACTATGATGAATCCAGTGGAAGATGGAACTGCTTAGTGGCACGGCAACACATTGAAATGAGTACT
ACTGGCTGGGTTGGAAGATTTAGGCCTTCAGAACCTCATTTTACCCTTGATGGTAATAGCTTCTACAAGATCATC
AGCAATGAAGAAGGTTACAGACACATTTGCTATTTCCAAATAGATAAAAAGACTGCACATTTATTACAAAAGGC
ACCTGGGAAGTCATCGGGATAGAAGCTCTAACCAGTGATTATCTATACTACATTAGTAATGAATATAAAGGAATG
CCAGGAGGAAGGAATCTTTATAAAATCCAACTTATTGACTATACAAAAGTGACATGCCTCAGTTGTGAGCTGAAT
CCGGAAAGGTGTCAGTACTATTCTGTGTCATTCAGTAAAGAGGCGAAGTATTATCAGCTGAGATGTTCCGGTCCT
GGTCTGCCCCTCTATACTCTACACAGCAGCGTGAATGATAAAGGGCTGAGAGTCCTGGAAGACAATTCAGCTTTG
GATAAAATGCTGCAGAATGTCCAGATGCCCTCCAAAAAACTGGACTTCATTATTTTGAATGAAACAAAATTTTGG
TATCAGATGATCTTGCCTCCTCATTTTGATAAATCCAAGAAATATCCTCTACTATTAGATGTGTATGCAGGCCCA
TGTAGTCAAAAAGCAGACACTGTCTTCAGACTGAACTGGGCCACTTACCTTGCAAGCACAGAAAACATTATAGTA
GCTAGCTTTGATGGCAGAGGAAGTGGTTACCAAGGAGATAAGATCATGCATGCAATCAACAGAAGACTGGGAACA
TTTGAAGTTGAAGATCAAATTGAAGCAGCCAGACAATTTTCAAAAATGGGATTTGTGGACAACAAACGAATTGCA
ATTTGGGGCTGGTCATATGGAGGGTACGTAACCTCAATGGTCCTGGGATCGGGAAGTGGCGTGTTCAAGTGTGGA
ATAGCCGTGGCGCCTGTATCCCGGTGGGAGTACTATGACTCAGTGTACACAGAACGTTACATGGGTCTCCCAACT
CCAGAAGACAACCTTGACCATTACAGAAATTCAACAGTCATGAGCAGAGCTGAAAATTTTAAACAAGTTGAGTAC
CTCCTTATTCATGGAACAGCAGATGATAACGTTCACTTTCAGCAGTCAGCTCAGATCTCCAAAGCCCTGGTCGAT
GTTGGAGTGGATTTCCAGGCAATGTGGTATACTGATGAAGACCATGGAATAGCTAGCAGCACAGCACACCAACAT
ATATATACCCACATGAGCCACTTCATAAAACAATGTTTCTCTTTACCT**TAG**CACCTCAAAATACCATGCCATTTA
AAGCTTATTAAAACTCATTTTTGTTTTCATTATCTCAAAACTGCACTGTCAAGATGATGATGATCTTTAAAATAC
ACACTCAAATCAAGAAACTTAAGGTTACCTTTGTTCCCAAATTTCATACCTATCATCTTAAGTAGGGACTTCTGT
CTTCACAACAGATTATTACCTTACAGAAGTTTGAATTATCCGGTCGGGTTTTATTGTTTAAAATCATTTCTGCAT
CAGCTGCTGAAACAACAAATAGGAATTGTTTTTATGGAGGCTTTGCATAGATTCCCTGAGCAGGATTTTAATCTT
TTTCTAACTGGACTGGTTCAAATGTTGTTCTCTTCTTTAAAGGGATGGCAAGATGTGGGCAGTGATGTCACTAGG
GCAGGGACAGGATAAGAGGGATTAGGGAGAGAAGATAGCAGGGCATGGCTGGGAACCCAAGTCCAAGCATACCAA
CACGAGCAGGCTACTGTCAGCTCCCCTCGGAGAAGAGCTGTTCACCACGAGACTGGCACAGTTTTCTGAGAAAGA
CTATTCAAACAGTCTCAGGAAATCAAATATCGAAGCACTGACTTCTAAGTAAACCACAGCAGTTGAAAGACTCC
AAAGAAATGTAAGGGAAACTGCCAGCAACGCAGCCCCCAGGTGCCAGTTATGGCTATAGGTGCTACAAAAACACA
GCAAGGGTGATGGGAAAGCATTGTAAATGTGCTTTTAAAAAAAAATACTGATGTTCCTAGTGAAAGAGGCAGCTT
GAAACTGAGATGTGAACACATCAGCTTGCCCTGTTAAAAGATGAAAATATTTGTATCACAAATCTTAACTTGAAG
GAGTCCTTGCATCAATTTTTCTTATTTCATTTCTTTGAGTGTCTTAATTAAAAGAATATTTTAACTTCCTTGGAC
TCATTTTAAAAAATGGAACATAAAATACAATGTTATGTATTATTATTCCCATTCTACATACTATGGAATTTCTCC
CAGTCATTTAATAAATGTGCCTTCATTTTTTC

FIGURE 337

MKTPWKILLGLLGAAALVTIITVPVVLLNKGTDDATADSRKTYTLTDYLKNTYRLKLYSLRWISDHEYLYKQENN
ILVFNAEYGNSSVFLENSTFDEFGHSINDYSISPDGQFILLEYNYVKQWRHSYTASYDIYDLNKRQLITEERIPN
NTQWVTWSPVGHKLAYVWNNDIYVKIEPNLPSYRITWTGKEDIIYNGITDWVYEEEVFSAYSALWWSPNGTFLAY
AQFNDTEVPLIEYSFYSDESLQYPKTVRVPYPKAGAVNPTVKFFVVNTDSLSSVTNATSIQITAPASMLIGDHYL
CDVTWATQERISLQWLRRIQNYSVMDICDYDESSGRWNCLVARQHIEMSTTGWVGRFRPSEPHFTLDGNSFYKII
SNEEGYRHICYFQIDKKDCTFITKGTWEVIGIEALTSDYLYYISNEYKGMPGGRNLYKIQLIDYTKVTCLSCELN
PERCQYYSVSFSKEAKYYQLRCSGPGLPLYTLHSSVNDKGLRVLEDNSALDKMLQNVQMPSKKLDFIILNETKFW
YQMILPPHFDKSKKYPLLLDVYAGPCSQKADTVFRLNWATYLASTENIIVASFDGRGSGYQGDKIMHAINRRLGT
FEVEDQIEAARQFSKMGFVDNKRIAIWGWSYGGYVTSMVLGSGSGVFKCGIAVAPVSRWEYYDSVYTERYMGLPT
PEDNLDHYRNSTVMSRAENFKQVEYLLIHGTADDNVHFQQSAQISKALVDVGVDFQAMWYTDEDHGIASSTAHQH
IYTHMSHFIKQCFSLP

FIGURE 338

AAGTGCTGCGAGCCCTGGGCCACGCTGGCCGTGCTGGCAGTGGGCCGCCTCGATCCCTCTGCAGTCTTTCCCTTG
AGGCTCCAAGACCAGCAGGTGAGGCCTCGCGGCGCTGAAACCGTGAGGCCCGGACCACAGGCTCCAG**ATG**GACCC
TGGGAAGGACAAAGAGGGGGTGCCCCAGCCCTCAGGGCCGCCAGCAAGGAAGAAATTTGTGATACCCCTCGACGA
GGATGAGGTCCCTCCTGGAGTGGCCAAGCCCTTATTCCGATCTACACAGAGCCTTCCCACTGTGGACACCTCGGC
CCAGGCGGCCCCTCAGACCTACGCCGAATATGCCATCTCACAGCCTCTGGAAGGGGCTGGGGCCACGTGCCCCAC
AGGGTCAGAGCCCCTGGCAGGAGAGACGCCCAACCAGGCCCTGAAACCCGGGGCAAAATCCAACAGCATCATTGT
GAGCCCTCGGCAGAGGGGCAATCCCGTACTGAAGTTCGTGCGCAACGTGCCCTGGGAATTTGGCGACGTAATTCC
CGACTATGTGCTGGGCCAGAGCACCTGTGCCCTGTTCCTCAGCCTCCGCTACCACAACCTGCACCCAGACTACAT
CCATGGGCGGCTGCAGAGCCTGGGGAAGAACTTCGCCTTGCGGGTCCTGCTTGTCCAGGTGGATGTGAAAGATCC
CCAGCAGGCCCTCAAGGAGCTGGCTAAGATGTGTATCCTGGCCGACTGCACATTGATCCTCGCCTGGAGCCCCGA
GGAAGCTGGGCGGTACCTGGAGACCTACAAGGCCTATGAGCAGAAACCAGCGGACCTCCTGATGGAGAAGCTAGA
GCAGGACTTCGTCTCCCGGGTGACTGAATGTCTGACCACCGTGAAGTCAGTCAACAAAACGGACAGTCAGACCCT
CCTGACCACATTTGGATCTCTGGAACAGCTCATCGCCGCATCAAGAGAAGATCTGGCCTTATGCCCAGGCCTGGG
CCCTCAGAAAGCCCGGAGGCTGTTTGATGTCCTGCACGAGCCCTTCTTGAAAGTACCC**TGA**TGACCCCAGCTGCC
AAGGAAACCCCAGTGTAATAATAAATCGTCCTCCCAGGCCAGGCTC

FIGURE 339

MDPGKDKEGVPQPSGPPARKKFVIPLDEDEVPPGVAKPLFRSTQSLPTVDTSAQAAPQTYAEYAISQPLEGAGAT
CPTGSEPLAGETPNQALKPGAKSNSIIVSPRQRGNPVLKFVRNVPWEFGDVIPDYVLGQSTCALFLSLRYHNLHP
DYIHGRLQSLGKNFALRVLLVQVDVKDPQQALKELAKMCILADCTLILAWSPEEAGRYLETYKAYEQKPADLLME
KLEQDFVSRVTECLTTVKSVNKTDSQTLLTTFGSLEQLIAASREDLALCPGLGPQKARRLFDVLHEPFLKVP

FIGURE 340A

GCCAGCGATCAGAGCAGCGCTGGGTGTTCAGGGGCCAAG**ATG**GCGGCGCGCCGGGGACGGAGAGACGGAGTCGCG
CCGCCCCCGAGTGGGGGCCCCGGTCCGGACCCTGGCGGGGGAGCCCGCGGCAGTGGTTGGCGAAGTCGAAGCCAA
GCGCCGTATGGGACTTTGGGCGCTGTGAGCGGCGGCGAGCAGGTGCTGCTGCATGAGGAGGCGGGTGATTCTGGC
TTTGTCAGTCTCTCTCGGCAGGGCCCATCTCTGAGGGACAAGGACCTGGAAATGGAGGAGCTAATGCTGCAGGAT
GAGACACTGCTGGGGACCATGCAGAGCTACATGGATGCCTCCCTTATCTCCCTCATTGAGGATTTTGGGAGCCTT
GGAGAGAGCAGGTTATCTCTGGAGGACCACAATGAAGTGTCGCTGCTCACGGCTCTGACGGAGATCTTGGACAAT
GCAGATTCTGAGAACCTTTCTCCATTTGACAGCATTCCTGATTCGGAGCTGCTTGTGTCACCCCGGGAGGGCTCC
TCTCTGCACAAGCTGCTTACTCTCTCGGACACCCCCAGAACGTGACCTCATCACCCCAGTTGACCCACTGGGG
CCCAGTACGGGCAGCAGTAGAGGGAGTGGGGTTGAAATGTCTCTTCCAGATCCCTCTTGGGACTTCTCCCCACCC
TCTTTCTTAGAGACCTCTTCCCCCAAGCTTCCTAGCTGGAGACCCCCAAGATCAAGACCACGCTGGGGCCAATCC
CCACCTCCCCAGCAGCGCAGTGATGGAGAAGAAGAGGAGGAGGTGGCCAGCTTCAGTGGCCAGATTCTTGCCGGG
GAGCTTGACAACTGTGTGAGCAGTATCCCGGACTTCCCCATGCATTTGGCCTGCCCTGAGGAGGAAGATAAAGCA
ACAGCAGCAGAGATGGCAGTGCCAGCAGCTGGTGATGAGAGCATCTCCTCCCTGAGTGAGCTGGTGCGGGCCATG
CACCCATACTGCCTGCCCAACCTCACCCACCTGGCATCACTTGAGGATGAGCTTCAGGAGCAGCCAGATGATTTG
ACACTGCCTGAGGGCTGCGTAGTGCTGGAGATTGTGGGGCAGGCAGCCACAGCTGGCGATGACCTGGAGATCCCA
GTTGTGGTGCGACAGGTCTCTCCTGGACCCCGGCCTGTGCTCCTGGATGACTCGCTAGAGACTAGTTCTGCCTTG
CAGCTGCTTATGCCTACACTGGAGTCAGAGACAGAGGCTGCTGTGCCCAAGGTAACCCTCTGCTCTGAGAAAGAG
GGGTTGTCATTGAACTCAGAGGAGAAGCTGGACTCAGCCTGCTTATTGAAGCCCAGGGAGGTCGTGGAGCCGGTG
GTGCCCAAGGAGCCTCAGAACCCACCTGCCAATGCAGCACCAGGTTCCCAGAGAGCTCGAAAGGGCAGGAAGAAG
AAGAGCAAGGAGCAGCCAGCAGCCTGTGTGGAAGGCTATGCCAGGAGGCTGAGGTCATCTTCTCGCGGGCAGTCT
ACTGTAGGTACAGAAGTGACCTCTCAGGTAGACAACTTGCAGAAACAGCCTCAGGAAGAACTTCAAAAAGAGTCT
GGGCCTCTCCAGGGTAAGGGGAAGCCCCGGGCTTGGGCTCGGGCCTGGGCAGCTGCCTTGGAGAATTCTAGCCCT
AAGAACTTGGAGAGAAGTGCTGGACAAAGTAGTCCTGCTAAAGAAGGCCCTCTAGACCTCTACCCAAAGCTGGCT
GACACTATCCAAACCAATCCTATACCAACCCATCTCTCATTGGTCGACTCTGCCCAAGCCAGCCCCATGCCAGTT
GACTCTGTTGAAGCTGATCCCACTGCAGTTGGCCCTGTTCTAGCTGGCCCTGTACCTGTTGACCCTGGGTTGGTT
GACCTTGCTTCAACCAGCTCAGAACTGGTTGAGCCTCTCCCGGCTGAGCCAGTGCTGATCAACCCAGTCCTGGCT
GACTCAGCAGCAGTTGACCCTGCAGTGGTTCCCATCTCAGATAACTTGCCACCAGTTGATGCTGTCCCGTCTGGC
CCAGCACCAGTTGATCTAGCACTGGTTGACCCTGTTCCTAATGACCTGACTCCAGTTGACCCAGTGCTAGTTAAG
TCCAGACCAACTGATCCCAGACGTGGTGCAGTGTCATCAGCCCTGGGGGGTTCAGCACCCCAGCTCCTCGTGGAG
TCAGAGTCCTTGGACCCACCAAAGACCATCATCCCTGAAGTCAAAGAGGTTGTGGATTCTCTGAAAATTGAAAGT
GGTACCAGTGCTACAACCCATGAAGCCAGACCTCGGCCTCTCAGCTTATCTGAGTACCGGCGACGAAGGCAGCAA
CGCCAAGCAGAAACAGAAGAGAGAAGTCCACAGCCCCCAACTGGGAAGTGGCCTAGCCTTCCAGAGACTCCCACA
GGGCTGGCAGACATCCCTTGTCTTGTCATCCCACCAGCCCCAGCCAAGAAGACAGCTCTGCAGAGAAGCCCTGAA
ACACCCCTTGAGATTTGCCTTGTGCCTGTAGGTCCCAGCCCTGCTTCTCCTAGTCCTGAGCCACCTGTAAGCAAA
CCTGTGGCCTCATCTCCCACTGAGCAGGTGCCATCCCAGGAGATGCCACTGTTGGCGAGACCTTCCCCTCCTGTG
CAGTCTGTGTCCCCTGCTGTGCCCACACCTCCCTCGATGTCTGCTGCCCTGCCTTTCCCTGCAGGTGGGCTTGGC
ATGCCCCCCAGTCTGCCCCCACCTCCCTTGCAGCCTCCTAGTCTTCCATTGTCTATGGGGCCAGTACTACCTGAT
CCGTTTACTCACTATGCCCCCTTGCCATCCTGGCCTTGTTATCCTCATGTGTCCCCTTCTGGCTATCCTTGCCTG
CCCCCCCCCACCAACGGTGCCCCTAGTGTCTGGTACTCCTGGTGCCTATGCCGTGCCTCCCACTTGCAGTGTGCCT
TGGGCACCCCCTCCTGCCCCAGTCTCACCTTACAGTTCCACATGTACCTATGGGCCCTTGGGATGGGGCCCAGGG
CCTCAACATGCTCCATTCTGGTCTACTGTTCCCCCACCTCCTTTGCCTCCAGCCTCCATTGGGAGAGCTGTTCCC
CAACCTAAAATGGAGTCTAGGGGCACTCCAGCTGGCCCTCCTGAAAATGTACTTCCCTTGTCGATGGCTCCTCCC
CTCAGTCTTGGGCTACCTGGCCATGGAGCTCCTCAGACAGAGCCTACCAAGGTGGAGGTCAAGCCAGTGCCTGCA
TCTCCCCATCCGAAACACAAGGTGTCTGCCCTGGTGCAAAGTCCCCAGATGAAGGCTCTAGCATGTGTGTCTGCT
GAAGGTGTGACTGTTGAGGAGCCTGCATCAGAGAGGCTAAAGCCTGAGACCCAAGAGACCAGGCCCAGGGAGAAG
CCCCCCTTGCCTGCTACCAAGGCTGTTCCCACACCAAGGCAGAGCACTGTCCCCAAGCTGCCTGCTGTCCACCCA
GCCCGTCTAAGGAAGCTGTCCTTCCTGCCTACCCCACGTACTCAGGGTTCTGAAGATGTGGTACAGGCTTTCATC
AGTGAGATTGGAATTGAGGCATCGGACCTGTCCAGTCTGCTGGAGCAGTTTGAGAAATCAGAAGCCAAAAAGGAG

FIGURE 340B

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TGTCCTCCTCCGGCTCCTGCTGACAGCTTGGCTGTAGGAAACTCAGGCGGCGTTGACATTCCCCAGGAGAAGAGG
CCCCTAGACCGGTTACAAGCCCCAGAACTGGCCAACGTGGCAGGGCTCACCCCTCCAGCTACCCCTCCCCACCAG
TTATGGAAGCCCCTGGCTGCTGTCTCACTGCTGGCCAAAGCCAAATCTCCTAAGTCCACCGCCCAGGAGGGAACC
CTGAAGCCTGAAGGAGTTACGGAGGCCAAACATCCAGCTGCAGTTCGCCTCCAAGAAGGGGTCCATGGCCCTAGT
CGAGTCCATGTGGGCTCTGGGGACCATGACTATTGTGTCCGGAGCAGGACCCCCCCAAAAAAGATGCCTGCCCTA
GTCATTCCAGAGGTGGGCTCCCGATGGAATGTCAAGCGCCATCAGGACATCACCATCAAACCTGTCTTGTCCTTG
GGCCCAGCTGCCCCTCCGCCCCCATGCATAGCTGCCTCCCGGGAGCCGCTTGATCACAGGACTAGCAGTGAGCAG
GCAGATCCCTCAGCACCCTGCCTTGCCCCATCCAGCTTGCTGTCCCCTGAGGCCTCACCCTGCCGGAATGACATG
AACACTAGGACTCCCCCTGAACCCTCAGCCAAGCAGCGGTCAATGCGCTGTTACCGAAAAGCCTGCAGGTCAGCC
AGCCCCTCAAGCCAGGGCTGGCAGGGCCGCCGAGGCCGCAACAGCCGTTCTGTCAGCTCTGGGTCCAACCGGACT
AGCGAAGCATCTTCCTCATCCTCATCATCGTCTTCCTCATCCCGATCTCGGTCCAGGTCCCTCTCCCCCCCACAC
AAGAGGTGGCGAAGGTCCAGCTGTAGTTCCTCTGGACGTTCTCGAAGATGCTCTTCCTCTTCTTCGTCATCATCT
TCCTCTTCGTCTTCCTCATCCTCATCATCCAGTTCTCGAAGCCGCTCACGATCCCCATCCCCCCGCCGGAGAAGT
GACAGGAGGCGGCGGTACAGCTCTTATCGTTCACATGACCATTACCAAAGGCAAAGAGTGCTACAAAAGGAGCGT
GCAATAGAAGAAAGAAGGGTGGTCTTCATTGGAAAGATACCTGGCCGCATGACTCGATCAGAGCTGAAACAGAGG
TTCTCCGTTTTTGGAGAGATTGAGGAGTGCACCATCCACTTCCGTGTCCAAGGGGACAACTACGGCTTCGTCACT
TATCGCTATGCTGAGGAGGCATTTGCAGCCATTGAGAGTGGCCACAAGCTGCGGCAGGCAGATGAGCAGCCCTTT
GATCTCTGCTTTGGGGGCCGAAGGCAGTTCTGCAAGAGGAGCTATTCTGATCTTGACTCCAACCGGGAAGACTTT
GACCCAGCACCTGTAAAGAGCAAATTTGATTCTCTTGACTTTGACACATTGTTGAAACAGGCCCAGAAGAACCTC
AGGAGG**TAA**CCTTGGGCCCTTCCCTGCTATCCTTTTTCTCCTTTGGAGGTGCCCAACCTCCTCCACCCCCTTCCC
CTACTCTAGGGGAGAGAGCTGCTAGTGAGATGACTGTTTTATAAAGAAATGGAAAAAAGTGAAATAAAAAATATG
TTGAATCAGATTTTTTAAAAGGGGTATTTGTTTTTTTATAACAGGTATTGAAACAAGTTAACTTGCATTCCTATG
TAAGATAGGAGGGGCTGAGGGGATCCCCAGTGTTTGGAACATAAGTCACTATGCAGACTAATAAACATCAACTAG
AGAGAGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
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FIGURE 341

MAARRGRRDGVAPPPSGGPGPDPGGGARGSGWRSRSQAPYGTLGAVSGGEQVLLHEEAGDSGFVSLSRQGPSLRD
KDLEMEELMLQDETLLGTMQSYMDASLISLIEDFGSLGESRLSLEDHNEVSLLTALTEILDNADSENLSPFDSIP
DSELLVSPREGSSLHKLLTLSRTPPERDLITPVDPLGPSTGSSRGSGVEMSLPDPSWDFSPPSFLETSSPKLPSW
RPPRSRPRWGQSPPPQQRSDGEEEEEVASFSGQILAGELDNCVSSIPDFPMHLACPEEEDKATAAEMAVPAAGDE
SISSLSELVRAMHPYCLPNLTHLASLEDELQEQPDDLTLPEGCVVLEIVGQAATAGDDLEIPVVVRQVSPGPRPV
LLDDSLETSSALQLLMPTLESETEAAVPKVTLCSEKEGLSLNSEEKLDSACLLKPREVVEPVVPKEPQNPPANAA
PGSQRARKGRKKKSKEQPAACVEGYARRLRSSSRGQSTVGTEVTSQVDNLQKQPQEELQKESGPLQGKGKPRAWA
RAWAAALENSSPKNLERSAGQSSPAKEGPLDLYPKLADTIQTNPIPTHLSLVDSAQASPMPVDSVEADPTAVGPV
LAGPVPVDPGLVDLASTSSELVEPLPAEPVLINPVLADSAAVDPAVVPISDNLPPVDAVPSGPAPVDLALVDPVP
NDLTPVDPVLVKSRPTDPRRGAVSSALGGSAPQLLVESESLDPPKTIIPEVKEVVDSLKIESGTSATTHEARPRP
LSLSEYRRRQQRQAETEERSPQPPTGKWPSLPETPTGLADIPCLVIPPAPAKKTALQRSPETPLEICLVPVGPS
PASPSPEPPVSKPVASSPTEQVPSQEMPLLARPSPPVQSVSPAVPTPPSMSAALPFPAGGLGMPPSLPPPPLQPP
SLPLSMGPVLPDPFTHYAPLPSWPCYPHVSPSGYPCLPPPPTVPLVSGTPGAYAVPPTCSVPWAPPPAPVSPYSS
TCTYGPLGWGPGPQHAPFWSTVPPPPLPPASIGRAVPQPKMESRGTPAGPPENVLPLSMAPPLSLGLPGHGAPQT
EPTKVEVKPVPASPHPKHKVSALVQSPQMKALACVSAEGVTVEEPASERLKPETQETRPREKPPLPATKAVPTPR
QSTVPKLPAVHPARLRKLSFLPTPRTQGSEDVVQAFISEIGIEASDLSSLLEQFEKSEAKKECPPPAPADSLAVG
NSGGVDIPQEKRPLDRLQAPELANVAGLTPPATPPHQLWKPLAAVSLLAKAKSPKSTAQEGTLKPEGVTEAKHPA
AVRLQEGVHGPSRVHVGSGDHDYCVRSRTPPKKMPALVIPEVGSRWNVKRHQDITIKPVLSLGPAAPPPPCIAAS
REPLDHRTSSEQADPSAPCLAPSSLLSPEASPCRNDMNTRTPPEPSAKQRSMRCYRKACRSASPSSQGWQGRRGR
NSRSVSSGSNRTSEASSSSSSSSSSSSSRSRSRSLSPPHKRWRRSSCSSSGRSRRCSSSSSSSSSSSSSSSSSSSSR
SRSRSPSPRRRSDRRRRYSSYRSHDHYQRQRVLQKERAIEERRVVFIGKIPGRMTRSELKQRFSVFGEIEECTIH
FRVQGDNYGFVTYRYAEEAFAAIESGHKLRQADEQPFDLCFGGRRQFCKRSYSDLDSNREDFDPAPVKSKFDSLD
FDTLLKQAQKNLRR

FIGURE 342

CCGGAAGTGACTGCGGACGAATCGGCGTTTGCCGAGGCTGGCATAGATTTGGCTGTCTCCGCTCATAGCTGCTTT
TGGCGCGAAAG**ATG**CCGGGTCTGGTTGACTCAAACCCTGCCCCGCCTGAGTCTCAGGAGAAGAAGCCGCTGAAGC
CCTGCTGCGCTTGCCCGGAGACCAAGAAGGCGCGCGATGCGTGTATCATCGAGAAAGGAGAAGAACACTGTGGAC
ATCTAATTGAGGCCCACAAGGAATGCATGAGAGCCCTAGGATTTAAAATA**TGA**AATGGTGGTCTGCTGTGTGAAT
AAATAATTCCTGAAGAATGAAGAAGATTAATTTTGGGAGTTCTTTGACGAACTTTGATATGTGGAAAAAGTATTT
ATAATTTATTGTAAGAAGAAAGTAAAATATTACTAGTGGAAGATCTTC

FIGURE 343

MPGLVDSNPAPPESQEKKPLKPCCACPETKKARDACIIEKGEEHCGHLIEAHKECMRALGFKI

FIGURE 344

ATCCAATACAGGAGTGACTTGGAACTCCATTCTATCACT**ATG**AAGAAAAGTGGTGTTCTTTTCCTCTTGGGCATC
ATCTTGCTGGTTCTGATTGGAGTGCAAGGAACCCCAGTAGTGAGAAAGGGTCGCTGTTCCTGCATCAGCACCAAC
CAAGGGACTATCCACCTACAATCCTTGAAAGACCTTAAACAATTTGCCCCAAGCCCTTCCTGCGAGAAAATTGAA
ATCATTGCTACACTGAAGAATGGAGTTCAAACATGTCTAAACCCAGATTCAGCAGATGTGAAGGAACTGATTAAA
AAGTGGGAGAAACAGGTCAGCCAAAAGAAAAAGCAAAGAATGGGAAAAAACATCAAAAAAAGAAAGTTCT*G*AAA
GTTCGAAAATCTCAACGTTCTCGTCAAAAGAAGACTACA**TAA**GAGACCACTTCACCAATAAGTATTCTGTGTTAA
AAATGTTCTATTTTAATTATACCGCTATCATTCCAAGGAGGATGGCATATAATACAAAGGCTTATTAATTTGAC
TAGAAAATTTAAAACATTACTCTGAAATTGTAACTAAAGTTAGAAAGTTGATTTTAAGAATCCAAACGTTAAGAA
TTGTTAAAGGCTATGATTGTCTTTGTTCTTCTACCACCCACCAGTTGAATTTCATCATGCTTAAGGCCATGATTT
TAGCAATACCCATGTCTACACAGATGTTCACCCAACCACATCCCACTCACAACAGCTGCCTGGAAGAGCAGCCCT
AGGCTTCCACGTACTGCAGCCTCCAGAGAGTATCTGAGGCACATGTCAGCAAGTCCTAAGCCTGTTAGCATGCTG
GTGAGCCAAGCAGTTTGAAATTGAGCTGGACCTCACCAAGCTGCTGTGGCCATCAACCTCTGTATTTGAATCAGC
CTACAGGCCTCACACACAATGTGTCTGAGAGATTCATGCTGATTGTTATTGGGTATCACCACTGGAGATCACCAG
TGTGTGGCTTTCAGAGCCTCCTTTCTGGCTTTGGAAGCCATGTGATTCCATCTTGCCCGCTCAGGCTGACCACTT
TATTTCTTTTTGTTCCCCTTTGCTTCATTCAAGTCAGCTCTTCTCCATCCTACCACAATGCAGTGCCTTTCTTCT
CTCCAGTGCACCTGTCATATGCTCTGATTTATCTGAGTCAACTCCTTTCTCATCTTGTCCCCAACACCCCACAGA
AGTGCTTTCTTCTCCCAATTCATCCTCACTCAGTCCAGCTTAGTTCAAGTCCTGCCTCTTAAATAAACCTTTTTG
GACACACAAATTATCTTAAAACTCCTGTTTCACTTGGTTCAGTACCACATGGGTGAACACTCAATGGTTAACTAA
TTCTTGGGTGTTTATCCTATCTCTCCAACCAGATTGTCAGCTCCTTGAGGGCAAGAGCCACAGTATATTTCCCTG
TTTCTTCCACAGTGCCTAATAATACTGTGGAACTAGGTTTTAATAATTTTTTAATTGATGTTGTTATGGGCAGGA
TGGCAACCAGACCATTGTCTCAGAGCAGGTGCTGGCTCTTTCCTGGCTACTCCATGTTGGCTAGCCTCTGGTAAC
CTCTTACTTATTATCTTCAGGACACTCACTACAGGGACCAGGGATGATGCAACATCCTTGTCTTTTTATGACAGG
ATGTTTGCTCAGCTTCTCCAACAATAAGAAGCACGTGGTAAAACACTTGCGGATATTCTGGACTGTTTTTAAAAA
ATATACAGTTTACCGAAAATCATATAATCTTACAATGAAAAGGACTTTATAGATCAGCCAGTGACCAACCTTTTC
CCAACCATACAAAAATTCCTTTTCCCGAAGGAAAAGGGCTTTCTCAATAAGCCTCAGCTTTCTAAGATCTAACAA
GATAGCCACCGAGATCCTTATCGAAACTCATTTTAGGCAAATATGAGTTTTATTGTCCGTTTACTTGTTTCAGAG
TTTGTATTGTGATTATCAATTACCACACCATCTCCCATGAAGAAAGGGAACGGTGAAGTACTAAGCGCTAGAGGA
AGCAGCCAAGTCGGTTAGTGGAAGCATGATTGGTGCCCAGTTAGCCTCTGCAGGATGTGGAAACCTCCTTCCAGG
GGAGGTTCAGTGAATTGTGTAGGAGAGGTTGTCTGTGGCCAGAATTTAAACCTATACTCACTTTCCCAAATTGAA
TCACTGCTCACACTGCTGATGATTTAGAGTGCTGTCCGGTGGAGATCCCACCCGAACGTCTTATCTAATCATGAA
ACTCCCTAGTTCCTTCATGTAACTTCCCTGAAAAATCTAAGTGTTTCATAAATTTGAGAGTCTGTGACCCACTTA
CCTTGCATCTCACAGGTAGACAGTATATAACTAACAACCAAAGACTACATATTGTCACTGACACACGTTATAA
TCATTTATCATATATATACATACATGCATACACTCTCAAAGCAAATAATTTTTCACTTCAAAACAGTATTGACTT
GTATACCTTGTAATTTGAAATATTTTCTTTGTTAAAATAGAATGGTATCAATAAATAGACCATTAATCAG

FIGURE 345

MKKSGVLFLLGIILLVLIGVQGTPVVRKGRCSCISTNQGTIHLQSLKDLKQFAPSPSCEKIEIIATLKNGVQTCL
NPDSADVKELIKKWEKQVSQKKKQKNGKKHQKKKVLKVRKSQRSRQKKTT

FIGURE 346

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GAGCGCGGCTGGAGTTTGCTGCTGCCGCTGTGCAGTTTGTTCAGGGGCTTGTGGTGGTGAGTCCGAGAGGCTGCG
TGTGAGAGACGTGAGAAGGATCCTGCACTGAGGAGGTGGAAAGAAGAGGATTGCTCGAGGAGGCCTGGGGTCTGT
GAGGCAGCGGAGCTGGGTGAAGGCTGCGGGTTCCGGCGAGGCCTGAGCTGTGCTGTCGTC**ATG**CCTCAAACCCGA
TCCCAGGCACAGGCTACAATCAGTTTTCCAAAAAGGAAGCTGTCTCGGGCATTGAACAAAGCTAAAAACTCCAGT
GATGCCAAACTAGAACCAACAAATGTCCAAACCGTAACCTGTTCTCCTCGTGTAAAAGCCCTGCCTCTCAGCCCC
AGGAAACGTCTGGGCGATGACAACCTATGCAACACTCCCCATTTACCTCCTTGTTCTCCACCAAAGCAAGGCAAG
AAAGAGAATGGTCCCCCTCACTCACATACACTTAAGGGACGAAGATTGGTATTTGACAATCAGCTGACAATTAAG
TCTCCTAGCAAAAGAGAACTAGCCAAAGTTCACCAAAACAAAATACTTTCTTCAGTTAGAAAAAGTCAAGAGATC
ACAACAAATTCTGAGCAGAGATGTCCACTGAAGAAAGAATCTGCATGTGTGAGACTATTCAAGCAAGAAGGCACT
TGCTACCAGCAAGCAAAGCTGGTCCTGAACACAGCTGTCCCAGATCGGCTGCCTGCCAGGGAAAGGGAGATGGAT
GTCATCAGGAATTTCTTGAGGGAACACATCTGTGGGAAAAAAGCTGGAAGCCTTTACCTTTCTGGTGCTCCTGGA
ACTGGAAAAACTGCCTGCTTAAGCCGGATTCTGCAAGACCTCAAGAAGGAACTGAAAGGCTTTAAAACTATCATG
CTGAATTGCATGTCCTTGAGGACTGCCCAGGCTGTATTCCAGCTATTGCTCAGGAGATTTGTCAGGAAGAGGTA
TCCAGGCCAGCTGGGAAGGACATGATGAGGAAATTGGAAAAACATATGACTGCAGAGAAGGGCCCCATGATTGTG
TTGGTATTGGACGAGATGGATCAACTGGACAGCAAAGGCCAGGATGTATTGTACACGCTATTTGAATGGCCATGG
CTAAGCAATTCTCACTTGGTGCTGATTGGTATTGCTAATACCCTGGATCTCACAGATAGAATTCTACCTAGGCTT
CAAGCTAGAGAAAAATGTAAGCCACAGCTGTTGAACTTCCCACCTTATACCAGAAATCAGATAGTCACTATTTTG
CAAGATCGACTTAATCAGGTATCTAGAGATCAGGTTCTGGACAATGCTGCAGTTCAATTCTGTGCCCGCAAAGTC
TCTGCTGTTTCAGGAGATGTTCGCAAAGCACTGGATGTTTGCAGGAGAGCTATTGAAATTGTAGAGTCAGATGTC
AAAAGCCAGACTATTCTCAAACCACTGTCTGAATGTAAATCACCTTCTGAGCCTCTGATTCCCAAGAGGGTTGGT
CTTATTCACATATCCCAAGTCATCTCAGAAGTTGATGGTAACAGGATGACCTTGAGCCAAGAAGGAGCACAAGAT
TCCTTCCCTCTTCAGCAGAAGATCTTGGTTTGCTCTTTGATGCTCTTGATCAGGCAGTTGAAAATCAAAGAGGTC
ACTCTGGGGAAGTTATATGAAGCCTACAGTAAAGTCTGTCGCAAACAGCAGGTGGCGGCTGTGGACCAGTCAGAG
TGTTTGTCACTTTCAGGGCTCTTGGAAGCCAGGGGCATTTTAGGATTAAAGAGAAACAAGGAAACCCGTTTGACA
AAGGTGTTTTTCAAGATTGAAGAGAAAGAAATAGAACATGCTCTGAAAGATAAAGCTTTAATTGGAAATATCTTA
GCTACTGGATTGCCT**TAA**ATTCTTCTCTTACACCCCACCCGAAAGTATTCAGCTGGCATTTAGAGAGCTACAGTC
TTCATTTTAGTGCTTTACACATTCGGGCCTGAAAACAAATATGACCTTTTTTACTTGAAGCCAATGAATTTTAAT
CTATAGATTCTTTAATATTAGCACAGAATAATATCTTTGGGTCTTACTATTTTTACCCATAAAAGTGACCAGGTA
GACCCTTTTTAATTACATTCACTACTTCTACCACTTGTGTATCTCTAGCCAATGTGCTTGCAAGTGTACAGATCT
GTGTAGAGGAATGTGTGTATATTTACCTCTTCGTTTGCTCAAACATGAGTGGGTATTTTTTTGTTTGTTTTTTTT
GTTGTTGTTGTTTTTGAGGCGCGTCTCACCCTGTTGCCCAGGCTGGAGTGCAATGGCGCGTTCTCTGCTCACTAC
AGCACCCGCTTCCCAGGTTGAAGTGATTCTCTTGCCTCAGCCTCCCGAGTAGCTGGGATTACAGGTGCCCACCAC
CGCGCCCAGCTAATTTTTTAATTTTTAGTAGAGACAGGGTTTTACCATGTTGGCCAGGCTGGTCTTGAACTCCTG
ACCCTCAAGTGATCTGCCCACCTTGGCCTCCCTAAGTGCTGGGATTATAGGCGTGAGCCACCATGCTCAGCCATT
AAGGTATTTTGTTAAGAACTTTAAGTTTAGGGTAAGAAGAATGAAAATGATCCAGAAAAATGCAAGCAAGTCCAC
ATGGAGATTTGGAGGACACTGGTTAAAG
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FIGURE 347

MPQTRSQAQATISFPKRKLSRALNKAKNSSDAKLEPTNVQTVTCSPRVKALPLSPRKRLGDDNLCNTPHLPPCSP
PKQGKKENGPPHSHTLKGRRLVFDNQLTIKSPSKRELAKVHQNKILSSVRKSQEITTNSEQRCPLKKESACVRLF
KQEGTCYQQAKLVLNTAVPDRLPAREREMDVIRNFLREHICGKKAGSLYLSGAPGTGKTACLSRILQDLKKELKG
FKTIMLNCMSLRTAQAVFPAIAQEICQEEVSRPAGKDMMRKLEKHMTAEKGPMIVLVLDEMDQLDSKGQDVLYTL
FEWPWLSNSHLVLIGIANTLDLTDRILPRLQAREKCKPQLLNFPPYTRNQIVTILQDRLNQVSRDQVLDNAAVQF
CARKVSAVSGDVRKALDVCRRAIEIVESDVKSQTILKPLSECKSPSEPLIPKRVGLIHISQVISEVDGNRMTLSQ
EGAQDSFPLQQKILVCSLMLLIRQLKIKEVTLGKLYEAYSKVCRKQQVAAVDQSECLSLSGLLEARGILGLKRNK
ETRLTKVFFKIEEKEIEHALKDKALIGNILATGLP

FIGURE 348

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GAGCGCGGCTGGAGTTTGCTGCTGCCGCTGTGCAGTTTGTTCAGGGGCTTGTGGTGGTGAGTCCGAGAGGCTGCG
TGTGAGAGACGTGAGAAGGATCCTGCACTGAGGAGGTGGAAAGAAGAGGATTGCTCGAGGAGGCCTGGGGTCTGT
GAGGCAGCGGAGCTGGGTGAAGGCTGCGGGTTCCGGCGAGGCCTGAGCTGTGCTGTCGTCATGCCTCAAACCCGA
TCCCAGGCACAGGCTACAATCAGTTTTCCAAAAAGGAAGCTGTCTCGGGCATTGAACAAAGCTAAAAACTCCAGT
GATGCCAAACTAGAACCAACAAATGTCCAAACCGTAACCTGTTCTCCTCGTGTAAAAGCCCTGCCTCTCAGCCCC
AGGAAACGTCTGGGCGATGACAACCTATGCAACACTCCCCATTTACCTCCTTGTTCTCCACCAAAGCAAGGCAAG
AAAGAGAATGGTCCCCCTCACTCACATACACTTAAGGGACGAAGATTGGTATTTGACAATCAGCTGACAATTAAG
TCTCCTAGCAAAAGAGAACTAGCCAAAGTTCACCAAAACAAAATACTTTCTTCAGTTAGAAAAAGTCAAGAGATC
ACAACAAATTCTGAGCAGAGATGTCCACTGAAGAAAGAATCTGCATGTGTGAGACTATTCAAGCAAGAAGGCACT
TGCTACCAGCAAGCAAAGCTGGTCCTGAACACAGCTGTCCCAGATCGGCTGCCTGCCAGGGAAAGGGAGATGGAT
GTCATCAGGAATTTCTTGAGGGAACACATCTGTGGGAAAAAAGCTGGAAGCCTTTACCTTTCTGGTGCTCCTGGA
ACTGGAAAAACTGCCTGCTTAAGCCGGATTCTGCAAGACCTCAAGAAGGAACTGAAAGGCTTTAAAACTATCATG
CTGAATTGCATGTCCTTGAGGACTGCCCAGGCTGTATTCCCAGCTATTGCTCAGGAGATTTGTCAGGAAGAGGTA
TCCAGGCCAGCTGGGAAGGACATGATGAGGAAATTGGAAAAACATATGACTGCAGAGAAGGGCCCCATGATTGTG
TTGGTATTGGACGAGATGGATCAACTGGACAGCAAAGGCCAGGATGTATTGTACACGCTATTTGAATGGCCATGG
CTAAGCAATTCTCACTTGGTGCTGATTGGTATTGCTAATACCCTGGATCTCACAGATAGAATTCTACCTAGGCTT
CAAGCTAGAGAAAAATGTAAGCCACAGCTGTTGAACTTCCCACCTTATACCAGAAATCAGATAGTCACTATTTTG
CAAGATCGACTTAATCAGGTATCTAGAGATCAGGTTCTGGACAATGCTGCAGTTCAATTCTGTGCCCGCAAAGTC
TCTGCTGTTTCAGGAGATGTTCGCAAAGCACTGGATGTTTGCAGGAGAGCTATTGAAATTGTAGAGTCAGATGTC
AAAAGCCAGACTATTCTCAAACCACTGTCTGAATGTAAATCACCTTCTGAGCCTCTGATTCCCAAGAGGGTTGGT
CTTATTCACATATCCCAAGTCATCTCAGAAGTTGATGGTAACAGGATGACCTTGAGCCAAGAAGGAGCACAAGAT
TCCTTCCCTCTTCAGCAGAAGATCTTGGTTTGCTCTTTGATGCTCTTGATCAGGCAGTTGAAAATCAAAGAGGTC
ACTCTGGGGAAGTTATATGAAGCCTACAGTAAAGTCTGTCGCAAACAGCAGGTGGCGGCTGTGGACCAGTCAGAG
TGTTTGTCACTTTCAGGGCTCTTGGAAGCCAGGGGCATTTTAGGATTAAAGAGAAACAAGGAAACCCGTTTGACA
AAGGTGTTTTTCAAGATTGAAGAGAAAGAAATAGAACATGCTCTGAAAGATAAAGCTTTAATTGGAAATATCTTA
GCTACTGGATTGCCTTAAATTCTTCTCTTACACCCCACCCGAAAGTATTCAGCTGGCATTTAGAGAGCTACAGTC
TTCATTTTAGTGCTTTACACATTCGGGCCTGAAAACAAATATGACCTTTTTTACTTGAAGCCAATGAATTTAAT
CTATAGATTCTTTAATATTAGCACAGAATAATATCTTTGGGTCTTACTATTTTTACCCATAAAAGTGACCAGGTA
GACCCTTTTTAATTACATTCACTACTTCTACCACTTGTGTATCTCTAGCCAATGTGCTTGCAAGTGTACAGATCT
GTGTAGAGGAATGTGTGTATATTTACCTCTTCGTTTGCTCAAACATGAGTGGGTATTTTTTTGTTTGTTTTTTTT
GTTGTTGTTGTTTTTGAGGCGCGTCTCACCCTGTTGCCCAGGCTGGAGTGCAATGGCGCGTTCTCTGCTCACTAC
AGCACCCGCTTCCCAGGTTGAAGTGATTCTCTTGCCTCAGCCTCCCGAGTAGCTGGGATTACAGGTGCCCACCAC
CGCGCCCAGCTAATTTTTTAATTTTTAGTAGAGACAGGGTTTTACCATGTTGGCCAGGCTGGTCTTGAACTCCTG
ACCCTCAAGTGATCTGCCCACCTTGGCCTCCCTAAGTGCTGGGATTATAGGCGTGAGCCACCATGCTCAGCCATT
AAGGTATTTTGTTAAGAACTTTAAGTTTAGGGTAAGAAGAATGAAAATGATCCAGAAAAATGCAAGCAAGTCCAC
ATGGAGATTTGGAGGACACTGGTTAAAG
```

FIGURE 349

MPQTRSQAQATISFPKRKLSRALNKAKNSSDAKLEPTNVQTVTCSPRVKALPLSPRKRLGDDNLCNTPHLPPCSP
PKQGKKENGPPHSHTLKGRRLVFDNQLTIKSPSKRELAKVHQNKILSSVRKSQEITTNSEQRCPLKKESACVRLF
KQEGTCYQQAKLVLNTAVPDRLPAREREMDVIRNFLREHICGKKAGSLYLSGAPGTGKTACLSRILQDLKKELKG
FKTIMLNCMSLRTAQAVFPAIAQEICQEEVSRPAGKDMMRKLEKHMTAEKGPMIVLVLDEMDQLDSKGQDVLYTL
FEWPWLSNSHLVLIGIANTLDLTDRILPRLQAREKCKPQLLNFPPYTRNQIVTILQDRLNQVSRDQVLDNAAVQF
CARKVSAVSGDVRKALDVCRRAIEIVESDVKSQTILKPLSECKSPSEPLIPKRVGLIHISQVISEVDGNRMTLSQ
EGAQDSFPLQQKILVCSLMLLIRQLKIKEVTLGKLYEAYSKVCRKQQVAAVDQSECLSLSGLLEARGILGLKRNK
ETRLTKVFFKIEEKEIEHALKDKALIGNILATGLP

FIGURE 350

GGAGTGCGGGGCGCCCGGCGCCAGGGGAGCCGCCACAGCC**ATG**GATTGCAAAGATAGACCAGCTTTTCCAGTTAA
GAAGTTAATACAAGCCCGTCTGCCGTTTAAGCGCCTGAATCTTGTCCCAAAGGGGAAAGCCGATGACATGTCAGA
CGATCAGGGTACTTCTGTGCAAAGTAAAAGCCCCGATTTAGAGGCCTCTTTGGACACCTTGGAAAACAACTGTCA
TGTGGGTTCTGACATAGACTTTAGACCGAAACTTGTCAACGGGAAGGGTCCCTTAGATAACTTTTTAAGAAATAG
AATCGAAACCAGTATTGGCCAGAGCACAGTCATCATTGATTTGACAGAGGACTCGAATGAGCAGCCAGACAGTCT
TGTGGACCACAATAAACTAAATTCTGAAGCCTCTCCCTCCAGGGAGGCAATAAATGGCCAGCGAGAAGACACTGG
GGATCAGCAGGGGTTGTTGAAGGCCATTCAGAACGACAAGTTGGCATTTCCTGGAGAGACCCTTTCAGACATTCC
TTGCAAAACAGAGGAGGAGGGTGTTGGCTGTGGAGGTGCAGGGAGGAGAGGCGACTCCCAGGAATGTTCGCCACG
GAGCTGCCCGGAGCTGACGAGTGGCCCGAGAATGTGCCCCAGAAAGGAGCAGGACAGTTGGAGTGAAGCTGGGGG
CATCCTGTTCAAAGGGAAGGTGCCTATGGTGGTCTTGCAGGACATCTTGGCTGTGAGACCACCGCAAATCAAGTC
CCTTCCAGCCACACCCCAAGGCAAGAACATGACCCCTGAGAGTGAGGTGCTGGAATCTTTCCCCGAAGAAGACTC
TGTACTCAGCCATTCGTCCCTGAGCTCTCCCTCTTCCACCAGCTCGCCCGAGGGGCCGCCTGCTCCCCCAAAGCA
GCACAGCAGTACCAGTCCCTTCCCCACCTCCACGCCCCTCCGCAGAATAACTAAGAAATTCGTCAAAGGCTCTAC
AGAGAAGAACAAGCTCAGACTGCAAAGAGATCAGGAGCGTCTGGGCAAGCAGCTCAAGTTACGTGCAGAAAGGGA
AGAAAAGGAGAAGCTGAAAGAGGAGGCCAAGCGGGCCAAGGAGGAGGCCAAGAAGAAGAAGGAGGAAGAGAAGGA
GCTTAAGGAAAAGGAGAGGCGGGAGAAGCGGGAGAAGGATGAGAAGGAGAAGGCGGAGAAGCAGCGGCTCAAGGA
GGAGCGGCGCAAGGAGAGACAGGAAGCCCTGGAGGCTAAACTTGAGGAAAAAAGGAAAAAGGAAGAAGAGAAACG
GTTAAGAGAAGAAGAGAAGCGCATTAAAGCAGAGAAGGCCGAAATCACGAGGTTCTTCCAGAAACCAAAGACTCC
ACAGGCCCCCAAGACCCTGGCCGGCTCCTGTGGGAAGTTTGCCCCCTTTGAAATTAAAGAGCACATGGTCCTGGC
CCCTCGGCGTCGGACCGCTTTCCATCCAGACCTCTGCAGTCAGCTGGACCAGCTCCTCCAGCAGCAGAGCGGCGA
GTTCTCCTTCTTGAAAGACCTCAAAGGCCGGCAGCCCCTGAGGTCCGGACCCACGCACGTTTCCACCCGGAATGC
AGATATTTTTAACAGTGATGTCGTCATCGTGGAGCGTGGGAAGGGCGACGGTGTTCCCGAGAGGAGGAAGTTTGG
CAGGATGAAGCTCCTGCAGTTCTGTGAGAACCACCGGCCTGCCTACTGGGGTACCTGGAATAAGAAGACGGCACT
CATCCGCGCGCGAGACCCCTGGGCCCAGGACACGAAGCTCCTGGACTATGAGGTGGACAGTGATGAGGAGTGGGA
AGAAGAGGAGCCTGGGGAGTCCCTGTCCCACAGTGAGGGGGATGATGATGACGACATGGGAGAGGATGAAGATGA
GGACGATGGTTTCTTTGTGCCCCATGGGTACCTGTCTGAGGACGAAGGTGTGACAGAGGAGTGTGCCGACCCTGA
GAACCATAAGGTCCGCCAGAAACTGAAGGCCAAGGAGTGGGACGAGTTCCTGGCTAAGGGGAAGCGCTTTCGCGT
CCTGCAACCTGTGAAGATCGGCTGCGTGTGGGCGGCTGACAGAGACTGCGCAGGCGATGACCTGAAGGTACTGCA
GCAGTTCGCAGCCTGCTTCCTGGAGACCCTGCCGGCCCAGGAGGAGCAGACGCCCAAGGCCTCCAAGCGGGAGAG
GAGAGACGAGCAGATCCTGGCCCAGCTGCTGCCGCTCCTGCACGGCAATGTGAACGGGAGCAAGGTCATCATCCG
GGAGTTCCAGGAGCACTGCCGCCGGGGACTGCTCAGCAACCACACCGGCAGCCCGCGGACGCCCTCCACCACCTA
CCTGCACACCCCCACCCCCAGCGAGGATGCCGCCATCCCCTCTAAGTCCCGGCTCAAGCGGCTCATTTCCGAGAA
CTCAGTGTATGAGAAGCGGCCTGACTTCAGGATGTGCTGGTACGTGCACCCGCAGGTGCTACAGAGCTTCCAGCA
GGAGCACCTGCCCGTGCCGTGCCAGTGGAGCTATGTGACATCGGTGCCCTCGGCCCCCAAAGAGGACAGTGGCAG
CGTCCCCTCCACGGGGCCCAGCCAGGGCACTCCCATCTCGCTGAAGAGGAAGTCAGCGGGCAGCATGTGCATCAC
CCAATTCATGAAGAAGCGCAGGCACGACGGCCAGATTGGTGCTGAAGACATGGACGGCTTCCAGGCAGACACGGA
GGAGGAGGAAGAGGAGGAGGGCGACTGTATGATCGTGGATGTCCCGGATGCTGTGGAGGTCCAAGCCCCGTGTGG
AGCCGCTTCCGGAGCTGGGGGTGGTGTGGGGGTGGACACCGGCAAGGCCACCCTGACCGCGAGCCCACTGGGTGC
ATCC**TGA**GAGCAGGGGTGACGTATGTAGAACGCTTAGGGTGTCCTCCCCACAGAGCAGATACTTGAACCGACTCA
ATTCCTGTGTAAAGAGCACTTTGTCCTGCTTCACGGACCTCCCCAAAGTGTGCAGAGTTCTATATAGGATGCTGG
ATTAGTTCCTTTGATATTTGTAAAAATTCCCCCAAGAGCCGCATATGAATCTGCCCTTTAATAAAGCATTATTGA
GATTGCTGGCCTATTGGGGAAGCTGCGGGCACAGGA

FIGURE 351

MDCKDRPAFPVKKLIQARLPFKRLNLVPKGKADDMSDDQGTSVQSKSPDLEASLDTLENNCHVGSDIDFRPKLVN
GKGPLDNFLRNRIETSIGQSTVIIDLTEDSNEQPDSLVDHNKLNSEASPSREAINGQREDTGDQQGLLKAIQNDK
LAFPGETLSDIPCKTEEEGVGCGGAGRRGDSQECSPRSCPELTSGPRMCPRKEQDSWSEAGGILFKGKVPMVVLQ
DILAVRPPQIKSLPATPQGKNMTPESEVLESFPEEDSVLSHSSLSSPSSTSSPEGPPAPPKQHSSTSPFPTSTPL
RRITKKFVKGSTEKNKLRLQRDQERLGKQLKLRAEREEKEKLKEEAKRAKEEAKKKKEEEKELKEKERREKREKD
EKEKAEKQRLKEERRKERQEALEAKLEEKRKKEEEKRLREEEKRIKAEKAEITRFFQKPKTPQAPKTLAGSCGKF
APFEIKEHMVLAPRRRTAFHPDLCSQLDQLLQQQSGEFSFLKDLKGRQPLRSGPTHVSTRNADIFNSDVVIVERG
KGDGVPERRKFGRMKLLQFCENHRPAYWGTWNKKTALIRARDPWAQDTKLLDYEVDSDEEWEEEEPGESLSHSEG
DDDDDMGEDEDEDDGFFVPHGYLSEDEGVTEECADPENHKVRQKLKAKEWDEFLAKGKRFRVLQPVKIGCVWAAD
RDCAGDDLKVLQQFAACFLETLPAQEEQTPKASKRERRDEQILAQLLPLLHGNVNGSKVIIREFQEHCRRGLLSN
HTGSPRTPSTTYLHTPTPSEDAAIPSKSRLKRLISENSVYEKRPDFRMCWYVHPQVLQSFQQEHLPVPCQWSYVT
SVPSAPKEDSGSVPSTGPSQGTPISLKRKSAGSMCITQFMKKRRHDGQIGAEDMDGFQADTEEEEEEGDCMIVD
VPDAVEVQAPCGAASGAGGGVGVDTGKATLTASPLGAS

FIGURE 352

GCAGTTCAGACCCCCCCACACCCATCAAAGAGCCGCTCCTCCCCCCCGCAGGCGCCTTCGCCGCCTCCCTCCCTT
CCTTTCCTTTCCGCTCCTCTTCCGACCTGTCCACCCGGGAGGAAGGGAGCTGGAAAGGGGGCGGAAACCTCTCCC
CTCCAAAAAGCACAACAAAACTGTTCAGTGCGGAGGAGCCGGGTTCGCCCCTGCCGGACAGCGGGGGGCTTTGTT
CCCCGCAGTTGTTTCCTGCCCATTTGACCTGTCAGCTGCTGGGGAAACGCTGCTGTTGACCTTTGGTTGAACTGC
TAAGGCGATTTTGCTGATTTTTCTTTCTTTTTCCGCGAGGGCTGTCTTTTGCTCCTCCAAATGAGCCCAGTCCCC
CTCCCTTCTCCCCAAAGCGCTCCAAGAGAAAGTGCCAGGAAGGGGCTTGTCCCGGAAGGCCTGGCGGCTGAGCGG
GGCCAGGTCCTGGTTAGGCCACCAGGGTGGGCGTCCGCGCCATTGTTTGAGCTTGTCGGCGCTGGTGGGAGAGAT
GAGGGCAATTCCTCTGGGACGCAAGTCCCCTCGAATGGCCGGGGCTGGCCGGGATGTTCCCCGCACGGCGCTGCC
CTCGAGTCCCCCCGATGGAGAGCGCGGGCGCGCCTTCCTTCGCTGGCGTCCAAACCCGGGACCAGCTAGAACACA
GCAGGGCTGGGACTGGGTTCCAGCCCCACGTGGAGTCTGGATTTGTTTTGTTGTGTTTTGCTTTCCTTCCTGGAA
GAAATCCCGAGGGGACCGCCCTAGAGCGGCAGCTCCAGGACCTCGGCCCTTGGGCTTCCGGGGGTGCAGCCACTT
AGGCCCCGCTCCCGGGGAGAGAGGGATTATTTTTTAAGATTTATCCCCAGGGCGCGCGGCATTTCCCTGTCCCTC
GTGAATCCCGTTGAGAGTCCTCCCTCCCCAACCTCCTCCATTTCCCCAGCCAGACCGATTCGAGAGCCCTGGAGA
TTCTGGGCGAGGCTAGTGACTGGGTAGTACAGGCCTCTAGCCCCACCATTGCTCTCTCTGTCTTCAGTTCCCCAG
GAGGGCAATGGCATCAAACAGCACAGCTCTGGGGGATGTCAATATTGCATACCTTTTCTACCTAAAGGGAAAATG
ACTCGCTTTTCTGCTTGCAAATATGGTAGTTTCTGCTTACAAATGTAATACAATGCCCATGACAGCCAAGGACTG
GAAGCATAAGTTGCTAGGTCTTACAGGTGATTTTTTACAATGAAGCAAACTCACTATGTTAGACACCATTTACAT
TGGATGTCTCCAACTAACAAAAGTAACTAAAGACAGATGTAGGTGTAAATTGAGAGTGAAATTTGACCCTTTAGA
CCGTCACAACTTCCTTGGGCTTATCCTGGGTGCTTATAGGAGAGGTGGGCTCCACCCACAAAAATGGACTGCTCA
GAAAAATGAGGGAGAGAGAAAGGGTGGCCACTTTCCCGAGCCAAGAAATTCCTTGAAAAAAAATCAGAACATCTG
AAACCAGAGAGCCGATTTCCTTACCGGGAGGCAGTTCCTGGCTAACGAAGAGGAAGCACG**ATG**GAAGAAAAGTT
CACTCCAACGGAAGCCAGTTTGCTGAACATAGCAGATCGCCCAGGAGGACTGGGAGAGACTGCAAACCAGTTCGA
GCCCCCAGCATGGCGTTAGGTGTCAGCCAGCTGGCAGGAAGGTCCAGGTGTCTGTGTTCAGAGTCTCAAGGCGGC
TATGAGAGGTTTTCCTCCGAGTACCCAGAATTCTGTTCTAAAACCAAGGCCCTGGCAGCCATCCCACCCCCGGTT
CCCCCCAGTGCCACAGAGCCCTTGGACCTGGGCTGCAGCTCCTGTGGGACCCCACTACACGACCAGGGGGGTCCT
GTGGAGATCCTTCCCTTCCTCTACCTCGGCAGTGCCTACCATGCTGCCCGGAGAGACATGCTGGACGCCCTGGGC
ATCACGGCTCTGTTGAATGTCTCCTCGGACTGCCCAAACCACTTTGAAGGACACTATCAGTACAAGTGCATCCCA
GTGGAAGATAACCACAAGGCCGACATCAGCTCCTGGTTCATGGAAGCCATAGAGTACATCGATGCCGTGAAGGAC
TGCCGTGGGCGCGTGCTGGTGCACTGCCAGGCGGGCATCTCGCGGTCGGCCACCATCTGCCTGGCCTACCTGATG
ATGAAGAAACGGGTGAGGCTGGAGGAGGCCTTCGAGTTCGTTAAGCAGCGCCGCAGCATCATCTCGCCCAACTTC
AGCTTCATGGGGCAGCTGCTGCAGTTCGAGTCCCAGGTGCTGGCCACGTCCTGTGCTGCGGAGGCTGCTAGCCCC
TCGGGACCCCTGCGGGAGCGGGGCAAGACCCCCGCCACCCCCACCTCGCAGTTCGTCTTCAGCTTTCCGGTCTCC
GTGGGCGTGCACTCGGCCCCCAGCAGCCTGCCCTACCTGCACAGCCCCATCACCACCTCTCCCAGCTGT**TAG**AGC
CGCCCTGGGGGCCCCAGAACCAGAGCTGGCTCCCAGCAAGGGTAGGACGGGCCGCATGCGGGCAGAAAGTTGGGA
CTGAGCAGCTGGGAGCAGGCGACCGAGCTCCTTCCCCATCATTTCTCCTTGGCCAACGACGAGGCCAGCCAGAAT
GGCAATAAGGACTCCGAATACATAATAAAAGCAAACAGAACACTCCAACTTAGAGCAATAACGGCTGCCGCAGCA
GCCAGGGAAGACCTTGGTTTGGTTTATGTGTCAGTTTCACTTTTCCGATAGAAATTTCTTACCTCATTTTTTTAA
GCAGTAAGGCTTGAAGTGATGAAACCCACAGATCCTAGCAAATGTGCCCAACCAGCTTTACTAAAGGGGGAGGAA
GGGAGGGCAAAGGGATGAGAAGACAAGTTTCCCAGAAGTGCCTGGTTCTGTGTACTTGTCCCTTTGTTGTCGTTG
TTGTAGTTAAAGGAATTTCATTTTTTAAAAGAAATCTTCGAAGGTGTGGTTTTCATTTCTCAGTCACCAACAGAT
GAATAATTATGCTTAATAATAAAGTATTTATTAAGACTTTCTTCAGAGTATGAAAGTACAAAAAGTCTAGTTACA
GTGGATTTAGAATATATTTATGTTGATGTCAAACAGCTGAGCACCGTAGCATGCAGATGTCAAGGCAGTTAGGAA
GTAAATGGTGTCTTGTAGATATGTGCAAGGTAGCATGATGAGCAACTTGAGTTTGTTGCCACTGAGAAGCAGGCG
GGTTGGGTGGGAGGAGGAAGAAAGGGAAGAATTAGGTTTGAATTGCTTTTTAAAAAAAAAAGAAAAGAAAAAGAC
AGCATCTCACTATGTTGCCAAGGCTCATCTTGAGAAGCAGGCGGGTTGGGTGGGAGGAGGAAGAAAGGGAAGAAT
TAGGTTTGAATTGCTTTTTTAAAAAAAAA

FIGURE 353

MGRKVHSNGSQFAEHSRSPRRTGRDCKPVRAPSMALGVSQLAGRSRCLCSESQGGYERFSSEYPEFCSKTKALAA
IPPPVPPSATEPLDLGCSSCGTPLHDQGGPVEILPFLYLGSAYHAARRDMLDALGITALLNVSSDCPNHFEGHYQ
YKCIPVEDNHKADISSWFMEAIEYIDAVKDCRGRVLVHCQAGISRSATICLAYLMMKKRVRLEEAFEFVKQRRSI
ISPNFSFMGQLLQFESQVLATSCAAEAASPSGPLRERGKTPATPTSQFVFSFPVSVGVHSAPSSLPYLHSPITTS
PSC

FIGURE 354

CTGCCATTTAGGACAAGCTGGATGATGATGGTTTGATAGCTCCAGGGGTTCGTGTATAGGAGATGATGAATCTGC
TTCATCCAGAATCACAATCTTAAAAGGCGGGAACTGAGGCGACTGTGGGGACATCAGTGATCGTAAGTCTCCTGG
GCCCGTTATTCTCAGATTAGGTGACGGAGCTAAGACTTCGAGACCATCTCGTCCTTTTTGTATCGCGGAAACCTG
AGGAACGAGCCGGCGGCGGTGACCTGCACGAGAAGCCAGGCTAACTGGGTGAAGTACC**ATG**CAAGCATTTCTTAA
AGGTACATCCATCAGTACTAAACCCCCGCTGACCAAGGATCGAGGAGTAGCTGCCAGTGCGGGAAGTAGCGGAGA
GAACAAGAAAGCCAAACCCGTTCCCTGGGTGGAAAAATATCGCCCAAAATGTGTGGATGAAGTTGCTTTCCAGGA
AGAAGTGGTTGCAGTGCTGAAAAAATCTTTAGAAGGAGCAGATCTTCCTAATCTCTTGTTTTACGGACCACCTGG
AACTGGAAAAACATCCACTATTTTGGCAGCAGCTAGAGAACTCTTTGGGCCTGAACTTTTCCGATTAAGAGTTCT
TGAGTTAAATGCATCTGATGAACGTGGAATACAAGTAGTTCGAGAGAAAGTGAAAAATTTTGCTCAATTAACTGT
GTCAGGAAGTCGCTCAGATGGGAAGCCGTGTCCGCCTTTTAAGATTGTGATTCTGGATGAAGCAGATTCTATGAC
CTCAGCTGCTCAGGCAGCTTTAAGACGTACCATGGAGAAGGAGTCGAAAACCACCCGATTCTGTCTTATCTGTAA
CTATGTCAGTCGAATAATTGAACCCCTGACCTCTAGATGTTCAAAATTCCGCTTCAAGCCTCTGTCAGATAAAAT
TCAACAGCAGCGATTACTAGACATTGCCAAGAAGGAAAATGTCAAAATTAGTGATGAGGGAATAGCTTATCTTGT
TAAAGTGTCAGAAGGAGACTTAAGAAAAGCCATTACATTTCTTCAAAGCGCTACTCGATTAACAGGTGGAAAGGA
GATCACAGAGAAAGTGATTACAGACATTGCTGGGGTAATACCAGCTGAGAAAATTGATGGAGTATTTGCTGCCTG
TCAGAGTGGCTCTTTTGACAAACTAGAAGCTGTGGTCAAGGATTTAATAGATGAGGGTCATGCAGCAACTCAGCT
CGTCAATCAACTCCATGATGTGGTTGTAGAAAATAACTTATCTGATAAACAGAAGTCTATTATCACAGAAAAACT
TGCCGAAGTTGACAAATGCCTAGCAGATGGTGCTGATGAACATTTGCAACTCATCAGCCTTTGTGCAACTGTGAT
GCAGCAGTTATCTCAGAATTGT**TAA**CGTGATATATCTGGATGGGGGGTTTTGTAAATAATGAAGTTGTAATAAAA
ATAAAATGACCAAAAGCACCG

FIGURE 818

MAGLNSLEAVKRKIQALQQQADEAEDRAQGLQRELDGERERREKAEGDVAALNRRIQLVEEELDRAQERLATALQ
KLEEAEKAADESERGMKVIENRAMKDEEKMEIQEMQLKEAKHIAEEADRKYEEVARKLVILEGELERAEERAEVS
ELKCGDLEEELKNVTNNLKSLEAASEKYSEKEDKYEEEIKLLSDKLKEAETRAEFAERTVAKLEKTIDDLEEKLA
QAKEENVGLHQTLDQTLNELNCI

FIGURE 819A

CGGCACCGTCGTAGGTGCGGGCCGCATGAATGGAGCGCCGGGCGTAAGGCAAAGCCTGGCACCGTCTGCGCGGCC
GCTATCTGCTCCCGGAGCGTGAGTGCGGGGTGTGGGGCGTGCGCGTGCGCGCTCAGAGGGGGCTCAAGGCGAGCG
CGCCGGGCAGTTGCGGGCGCGTGGCTGCTGAGGTTGGCGGCGGTGCCGCGCGCCCGACGGGCCGGTGGTTGCGGG
GCCTCCCGCCTCGACCCGGGCTGGGGGCAGCCGTGGCGGGCGCCGGGGACCGCAAGGGGCGGAGGAAAGGAGGGG
GCCGGTCCCGGCACGCAGAGGAGCAGCCGACC**ATG**CCCCGAGACAACATGGCCTCCTTGATCCAACGGATCGCCC
GCCAGGCTTGCCTCACCTTCCGGGGCAGCGGGGGCGGCCGCGGCGCTTCCGATCGCGACGCGGCTTCTGGCGCGG
AGGCGCCGATGCAGCCGGGCTTCCCCGAGAACCTGAGCAAGCTGAAGAGCCTCCTGACCCAGCTCCGCGCCGAGG
ACTTGAACATCGCCCCGCGCAAGGCCACACTGCAGCCGCTGCCGCCCAACCTGCCGCCAGTCACCTACATGCACA
TCTACGAGACGGACGGCTTCAGCCTGGGCGTGTTCCTGCTCAAGAGCGGCACGTCCATCCCGCTGCACGACCACC
CGGGCATGCACGGCATGCTCAAGGTGCTGTACGGCACCGTGCGCATCAGCTGCATGGACAAGCTAGACGCGGGCG
GCGGGCAACGGCCGCGGGCCTTGCCGCCCGAGCAGCAGTTCGAGCCGCCGCTGCAGCCCCGGGAGCGAGAAGCCG
TGCGGCCGGGCGTGCTGCGTTCGCGGGCCGAGTACACCGAGGCCAGCGGCCCCTGCATCCTCACACCGCACCGGG
ACAACCTGCACCAGATCGACGCCGTGGAAGGGCCTGCCGCCTTCCTGGACATCCTGGCCCCGCCCTACGACCCGG
ACGATGGCCGGGACTGCCACTATTACCGGGTGCTGGAGCCGGTCAGGCCCAAGGAGGCCTCCAGCTCGGCCTGTG
ACCTGCCTCGAGAGGTGTGGCTCCTGGAGACCCCACAGGCCGATGACTTCTGGTGCGAGGGAGAACCCTATCCAG
GTCCCAAGGTCTTCCCT**TGA**AGCCACTGGCGCCCAGGAGCGGTGGGCCGAAGACGTGCCCTACCCTACCACAAGG
GCTGTGTCTCTACCCCCTAGCCTGGGCGTTGGATCTACTGGAATGAGCAGCAGCCGCTTCCTCGGCAGCCTTGGG
AAGCACGGGCGACTGGACAGCAGCCGCCGGGCACGGTTATGGGGGCGGGGTGGGCGGGGAGGCTAGATTGTTTCC
TGGTACTGTCACTGCCACTGGGGCTTTGATTTGGAGGAATGGGGCAGGGGACTATCTGAAGCGCTTCCATCCTAA
AGCCATAATGAAAATATCTTCCTCTCTTCCCCATTCTATACAAATACTAAGTGGTTTTCTTGCTCCCACTCCCT
ACCCCTTAGTTAAATAGGGTTTATTTTCCACTCATGCCCTTATGCCTTTTTTTCTTATAGTTTTTTAACTTATTG
ACTGTGCATGACCCAGTGGTTTGAATTGTTTTTAGTTCAAGTCATTGGTAAAAACTAGGTTTAAGGAGATGAGCT
ACTGTTTAAAGTGAGCTGGCCTGCCTAATTAATTCCTTGTGAAAACTAAATGATTTTTTCAGTTTGGGGATCATT
CTCACAACATAACTATGCATGTAGAGGACAAGATTTATTTTCTTTTCTCCCTTTGCCCAGTAGCCACATCTGGTT
TACTCAGGCAGCATCTACTAAGAAATTCAGCACCTGCATATCTCTGTGACATGGTCACTTAGAGCTTATCTTCCC
TATGAATCTCCAGATCTGTGAGTCGAGCAGATTTCATGTTGCAGATTCACCTTTAATGCAAAGACTGTATTATCC
TCACATGACTTTTTTTCTTGTCTTACTGTACCTTAAAAGGTGATAGAGTAATTCTGTATTTTCTAACGGGAAGAT
TCAAAGGAGCTGAATGTGTTATGCTTCCAAACAACTGAATGTAAAACACTCCTAGCCAGTTGTTGCATTCCCTAT
ATTTATTTACTTCCAATATTTTACTGTAAAAGTAGGGAGAAATATTATGTTGATAGTTGTTTCATATTCTCTCAG
GAACTTTAATGTTCCCGACTCGGGTGATTCCAGCTGTGTTGCTGGCAGTGTTGTCTCAACCCTCTCCCTAAAATG
ACTGAGCCCTGGGTTCATCTAATGTGGTTTTCCTTAGGAAGAGATAGAAGGCACAGAAGATCACAGCTAGAGAAT
TGAGAATTAACTATACTACTAGCCATTTTAGGGCACCAAAACTTGGGATTAAACACTTCCTACTTCCCACTCCCA
ACTCCTGAAATGAAGTCTTGCTATCTGTGACTAGTTTATTTTTGTGCTTTTAATAGTCCGAGCAGTCTTACCTT
GTTTACACATGTATTGACACCATTTGCTTCAGGCCATGGAGCACTGTTTCTCCCTTTTTACTATTTATAGGATTC
CGTTTTTTCACAAGACTTTTAATAAAAAGAAATTGTAGAAATAAACACATTAAAATTTGCCCAGCTGTCGTCTAA
GCCCTCTTGATTGACTTGCCCAAGTGGCAATAGAGTTCTAATATCTATAATAAAGGGAGATTTGCTATTATTAGT
GGAATGTTGACCCCGTATGTAGAGAAACAGTACGTGCCTTTGCCTCTTTATGCACACAGAGACCCAGGGTGAGGG
AGTATTTGTTCCCAGTTTTTAAGATAGTATAAAAAAGCAAATACTTGGTGAGTGATTTAAAAATAAAACCAAAAC
AAAACACAAAAAGATATTCCACAGGACATGCCACTTTATTATAAAACCTGACACAGGCATAGTACCAAGTATTTC
CTGCATTGTTGCTAAAATTGTTTTATTGTAGCTCCACATTCTGGTGTAGTTTAAAATGCCTTTGGGGGCAGTTTG
AAGCAGTTCTTCATGCCACTTAGTTTGAAAATAAAATTCTAGATATGCAAATGATTTTCTTAGAAAACTTCACAA
AATAAAAGATCTTGTTTTTTTTTCCATAGCACAGTAATGAATGTGGTTATCAATCACATACTTTTTTGGATTATA
TTGTAGCAAAAAGTTGATTAGCTTACCAAGATTATTAATAGCAATGTATGTGTTATAATACAACTTAGTACATTA
AAGCTACGAAAACTCATCCTGGCTGTAGGATAGTAATAAAGGAAGAATTATGACTTCATTATGAAAAAAAGAAGT
TTTAAAGTTTTCAATTACGAGCAATTTGGAAGAAAAAACCTAAGGTGCTTTTCAAAAGAGTAACTGAAATTGTTG
CAGGCCAAAACAGCAATATGATATCTCAGATTTAGTTCAATAAGAACAGTGAAACTTTTGGTTCACTAATAAATT
CTGAGTAAATTAGTGGTGAAGACAAAATATAACTTGTTTTAGTGAGCCACTGAGGAAAGAATATGCTTATTACAA
AGACAAAATGTGGTGCAGAAACTATCTTGCACCTGTGTGCATAAACTGTTAGTCGTGACTGACTTGGTGTGTTGC

FIGURE 819B

TATTGTGTTTCTATATACTCCGTCCAATATAGATAATGTTTTAATAACAACTGTGGGATAAAAGTTATCTTCCCC
TTGGAAAGACTAATGAGCACAATGATATTAATCACTTTTATGGTGAATAATAAATGCAATAATTGCCTCATGGGT
GAGAAATTGTCTGTCC

FIGURE 820

MPRDNMASLIQRIARQACLTFRGSGGGRGASDRDAASGAEAPMQPGFPENLSKLKSLLTQLRAEDLNIAPRKATL
QPLPPNLPPVTYMHIYETDGFSLGVFLLKSGTSIPLHDHPGMHGMLKVLYGTVRISCMDKLDAGGGQRPRALPPE
QQFEPPLQPREREAVRPGVLRSRAEYTEASGPCILTPHRDNLHQIDAVEGPAAFLDILAPPYDPDDGRDCHYYRV
LEPVRPKEASSSACDLPREVWLLETPQADDFWCEGEPYPGPKVFP

FIGURE 821

GGGGGAGAGGGGGCTCAAGGCGAGCGCGCCGGGCAGTTGCGGGCGCGTGGCTGCTGAGGTTGGCGGCGGTGCCGC
GCGCCCGACGGGCCGGTGGTTGCGGGGCCTCCCGCCTCGACCCGGGCTGGGGGCAGCCGTGGCGGCCGCCGGGGA
CCGCAAGGGGCGGAGGAAAGGAGGGGGCCGGTCCCGGCACGCAGAGGAGCAGCCGACCATGCCCCGAGACAACAT
GGCCTCCTTGATCCAACGGATCGCCCGCCAGGCTTGCCTCACCTTCCGGGGCAGCTGGGGCGGCCGCGGCGCTTC
CGATCGCGACGCGGCTTCTGGCGCGGAGGCGCCG**ATG**CAGCCGGGCTTCCCCGAGAACCTGAGCAAGCTGAAGAG
CCTCCTGACCCAGCTCCGCGCCGAGGACTTGAACATCGCCCCGCGCAAGGCCACACTGCAGCCGCTGCCGCCCAA
CCTGCCGCCAGTCACCTACATGCACATCTACGAGACGGACGGCTTCAGCCTGGGCGTGTTCCTGCTCAAGAGCGG
CACGTCCATCCCGCTGCACGACCACCCGGGCATGCACGGCATGCTCAAGGTGCTGTACGGCACCGTGCGCATCAG
CTGCATGGACAAGCTAGACGCGGGCGGCGGGCAACGGCCGCGGGCCTTGCCGCCCGAGCAGCAGTTCGAGCCGCC
GCTGCAGCCCCGGGAGCGAGAAGCCGTGCGGCCGGGCGTGCTGCGTTCGCGGGCCGAGTACACCGAGGCCAGCGG
CCCCTGCATCCTCACACCGCACCGGGACAACCTGCACCAGATCGACGCCGTGGAAGGGCCTGCCGCCTTCCTGGA
CATCCTGGCCCCGCCCTACGACCCGGACGATGGCCGGGACTGCCACTATTACCGGGTGCTGGAGCCGGTCAGGCC
CAAGGAGGCCTCCAGCTCGGCCTGTGACCTGCCTCGAGAGGTGTGGCTCCTGGAGACCCCACAGGCCGATGACTT
CTGGTGCGAGGGAGAACCCTATCCAGGTCCCAAGGTCTTCCCT**TGA**AGCCACTGGCGCCCAGGAGCGGTGGGCCG
AAGACGTGCCCTACCCTACCACAAGGGCTGTGTCTCTACCCCCTAGCCTGGGCGTTGGATCTACTGGAATGAGCA
GCAGCCGCTTCCTCGGCAGCCTTGGGAAGCACGGGCGACTGGACAGCAGCCGCCGGGCACGGTTATGGGGGCGGG
GTGGGCGGGGAGGCTAGATTGTTTCCTGGTACTGTCACTGCCACTGGGGCTTTGATTTGGAGGAATGGGGCAGGG
GACTATCTGAAGCGCTTCCATCCTAAAGCCATAATGAAAATATCTTCCTCTCTTCCCCATTCTATACAAAATACT
AAGTGGTTTTCTTGCTCCCACTCCCTACCCCTTAGTTAAATAGGGTTTATTTTCCACTCATGCCCTTATGCCTTT
TTTTCTTATAGTTTTTTAACTTATTGACTGTGCATGACCCAGTGGTTTGAATTGTTTTTAGTTCAAGTCATTGGT
AAAAACTAGGTTTAAGGAGATGAGCTACTGTTTAAAGTGAGCTGGCCTGCCTAATTAATTCCTTGTGAAAACTAA
ATGATTTTTTCAGTTTGGGGATCATTCTCACAACATAACTATGCATGTAGAGGACAAGATTTATTTTCTTTCCTC
CCTTTGCCCAGTAGCCACATCTGGTTTACTCAGGCAGCATCTACTAAGAAATTCAGCACCTGCATATCTCTGTGA
CATGGTCACTTAGAGCTTATCTTCCCTATGAATCTCCAGATCTGTGAGTCGAGCAGATTTCATGTTGCAGATTCA
CCTTTAATGCAAAGACTGTATTATCCTCACATGACTTTTTTCTTGTCTTACTGTACCTTAAAAGGTGATAGAGT
AATTCTGTATTTTCTAACGGGAAGATTCAAAGGAGCTGAATGTGTTATGCTTCCAAACAACTGAATGTAAAACAC
TCCTAGCCAGTTGTTGCATTCCCTATATTTATTTACTTCCAATATTTTACTGTAAAAGTAGGGAGAAATATTATG
TTGATAGTTGTTTCATATTCTCTCAGGAACTTTAATGTTCCCGACTCGGGTGATTCCAGCTGTGTTGCTGGCAGT
GTTGTCTCAACCCTCTCCCTAAAATGACTGAGCCCTGGGTTCATCTAATGTGGTTTTCCTTAGGAAGAGATAGAA
GGCACAGAAGATCACAGCTAGAGAATTGAGAATTAACTATACTACTAGCCATTTTAGGGCACCAAAACTTGGGAT
TAAACACTTCCTACTTCCCACTCCCAACTCCTGAAATGAAGTCTTGCTATCTGTGACTAGTTTTATTTTTGTGCT
TTTAATAGTCCGAGCAGTCTTACCTTGTTTACACATGTATTGACACCATTTGCTTCAGGCCATGGAGCACTGTTT
CTCCCTTTTTTACTATTTATAGGATTCCGTTTTTTCACAAGACTTTTAATAAAAGAAATTGTAGAAATAAACAC
ATTAAAATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 822

MQPGFPENLSKLKSLLTQLRAEDLNIAPRKATLQPLPPNLPPVTYMHIYETDGFSLGVFLLKSGTSIPLHDHPGM
HGMLKVLYGTVRISCMDKLDAGGGQRPRALPPEQQFEPPLQPREREAVRPGVLRSRAEYTEASGPCILTPHRDNL
HQIDAVEGPAAFLDILAPPYDPDDGRDCHYYRVLEPVRPKEASSSACDLPREVWLLETPQADDFWCEGEPYPGPK
VFP

FIGURE 823

ATGCCCCTAGGTCTCCTGTGGCTGGGCCTAGCCCTGTTGGGGGCTCTGCATGCCCAGGCCCAGGACTCCACCTCA
GACCTGATCCCAGCCCCACCTCTGAGCAAGGTCCCTCTGCAGCAGAACTTCCAGGACAACCAATTCCAGGGGAAG
TGGTATGTGGTAGGCCTGGCAGGGAATGCAATTCTCAGAGAAGACAAAGACCCGCAAAAGATGTATGCCACCATC
TATGAGCTGAAAGAAGACAAGAGCTACAATGTCACCTCCGTCCTGTTTAGGAAAAAGAAGTGTGACTACTGGATC
AGGACTTTTGTTCCAGGTTGCCAGCCCGGCGAGTTCACGCTGGGCAACATTAAGAGTTACCCTGGATTAACGAGT
TACCTCGTCCGAGTGGTGAGCACCAACTACAACCAGCATGCTATGGTGTTCTTCAAGAAAGTTTCTCAAAACAGG
GAGTACTTCAAGATCACCCTCTACGGGAGAACCAAGGAGCTGACTTCGGAACTAAAGGAGAACTTCATCCGCTTC
TCCAAATATCTGGGCCTCCCTGAAAACCACATCGTCTTCCCTGTCCCAATCGACCAGTGTATCGACGGC**TGA**

FIGURE 824

MPLGLLWLGLALLGALHAQAQDSTSDLIPAPPLSKVPLQQNFQDNQFQGKWYVVGLAGNAILREDKDPQKMYATI
YELKEDKSYNVTSVLFRKKKCDYWIRTFVPGCQPGEFTLGNIKSYPGLTSYLVRVVSTNYNQHAMVFFKKVSQNR
EYFKITLYGRTKELTSELKENFIRFSKYLGLPENHIVFPVPIDQCIDG

FIGURE 825

CACCGTCCGCAGCCCGAGCGCCCCGGAGCCGCAGGCGCCGCCGCGCAGAGACGCCGCGGCTGCGACTAGGCGCGC
CCAGCCGCACGTGGCGGACCCGCCCCCAGGCCCGCAGTGTCCTGGACCCCGCAGGCCTCCGCTCTCCTGTCCTCG
GCCCCGTCCCCAGGGCCGCG**ATG**AGCTTCCTGAGCCGACAGCAGCCGCCGCCACCCCGCCGCGCCGGGGCGGCCT
GCACCTTGCGGCAGAAGCTGATCTTCTCGCCCTGCAGCGACTGTGAGGAGGAGGAAGAAGAGGAGGAGGAGGAGG
GCAGCGGCCACAGCACCGGGGAGGACTCGGCCTTTCAAGAGCCCGACTCGCCGCTGCCGCCCGAGCGGAGCCCCA
CGGAGCCCGGGCCCGAGCGCCGCCGCTCGCCCGGGCCGGCCCCCGGCAGCCCCGGCGAGCTGGAGGAGGACCTGT
TGCTGCCCGGCGCCTGCCCGGGCGCGGACGAGGCGGGCGGTGGGGCGGAGGGCGACTCGTGGGAGGAGGAGGGCT
TCGGCTCCTCGTCGCCGGTCAAGTCGCCGGCGGCCCCCTACTTCCTGGGTAGCTCTTTCTCGCCGGTGCGCTGCG
GCGGCCCAGGAGATGCGTCGCCGCGGGGTTGCGGGGCGCGCCGGGCGGGCGAAGGCCGCCGCTCGCCGCGGCCGG
ACCACCCGGGCACCCCGCCACACAAGACCTTCCGCAAGCTGCGACTCTTCGACACCCCGCACACGCCCAAGAGTT
TGCTCTCCAAAGCTCGGGGAATTGATTCCAGCTCTGTTAAACTCCGGGGTAGTTCTCTCTTCATGGATACAGAAA
AATCAGGAAAAAGGGAATTTGATGTGCGACAGACTCCTCAAGTGAATATTAATCCTTTTACTCCGGATTCTTTGT
TGCTTCATTCCTCAGGACAGTGTCGTCGTAGAAAGAGAACGTATTGGAATGATTCCTGTGGTGAAGACATGGAAG
CCAGTGATTATGAGCTTGAAGATGAAACAAGACCTGCTAAGAGAATTACAATTACTGAAAGCAATATGAAGTCCC
GGTATACAACAGAATTTCATGAGCTAGAGAAATCGGCTCTGGAGAATTTGGTTCTGTATTTAAGTGTGTGAAGA
GGCTGGATGGATGCATTTATGCCATTAAGCGATCAAAAAAGCCATTGGCGGGCTCTGTTGATGAGCAGAACGCTT
TGAGAGAAGTATATGCTCATGCAGTGCTTGGACAGCATTCTCATGTAGTTCGATATTTCTCTGCGTGGGCAGAAG
ATGATCATATGCTTATACAGAATGAATATTGTAATGGTGGAAGTTTAGCTGATGCTATAAGTGAAAACTACAGAA
TCATGAGTTACTTTAAAGAAGCAGAGTTGAAGGATCTCCTTTTGCAAGTTGGCCGAGGCTTGAGGTATATTCATT
CAATGTCTTTGGTTCACATGGATATAAAACCTAGTAATATTTTCATATCTCGAACCTCAATCCCAAATGCTGCCT
CTGAAGAAGGAGACGAAGATGATTGGGCATCCAACAAAGTTATGTTTAAAATAGGTGATCTTGGGCATGTAACAA
GGATCTCCAGTCCACAAGTTGAGGAGGGCGATAGTCGTTTTCTTGCAAATGAAGTTTTACAGGAGAATTATACCC
ATCTACCAAAAGCAGATATTTTTGCGCTTGCCCTCACAGTGGTATGTGCTGCTGGTGCTGAACCTCTTCCGAGAA
ATGGAGATCAATGGCATGAAATCAGACAGGGTAGATTACCTCGGATACCACAAGTGCTTTCCCAAGAATTTACAG
AGTTGCTAAAAGTTATGATTCATCCAGATCCAGAGAGAAGACCTTCAGCAATGGCACTGGTAAAGCATTCAGTAT
TGCTGTCCGCTTCTAGAAAGAGTGCAGAACAATTACGAATAGAATTGAATGCCGAAAAGTTCAAAAATTCACTTT
TACAAAAAGAACTCAAGAAAGCACAGATGGCAAAAGCTGCAGCTGAGGAAAGAGCACTCTTCACTGACCGGATGG
CCACTAGGTCCACCACCCAGAGTAATAGAACATCTCGACTTATTGGAAAGAAAATGAACCGCTCTGTCAGCCTTA
CTATATAC**TGA**GCTACTCCTTTCCCACCTCCCCCTGAACACTGTGACAAGAGGAAGCTAGGTTGAAATCACTGAT
AGAATCCAGTTTGCAATTACTTTCTCGATTGGTGTCAGTAGTTTTACTGATTAGGACTTTTATTGTGAATTACAG
TTGAAAGCTGTATTTTGATGATTGCTATGTCAGGCTTTCATCTAATCTTACCAGTCTGTCTTCTGTAGGATGTGT
CACTGTTGGATGTTACACCAGCCTTTCCAGGGTTAACCACTGTGGTGGTGTGCTGCTTATAGTTTGCTGTTGCAT
TGTAATAAAAGGTGTCTTTCCCTGTAGTGACCTGTAAAAAGTACTCAAGGGCTTTATTACAGACATACCCTCCCT
TTGAAAAGGGACATGCTAAAAGACTCATTACTACTCAGCCTTCAATGTACCTGTGTGTCCATCTTATATTTCTTT
TTTTTTAATTGTGAATTAGACTTGTATATCCCACTGGGAGCACTTTGTAGGCATTGCATGAACCATGGGATGAT
GATTCTGTGGAGGTATTGCCTTGTGAATTTGCTGCTATTTAGTTTTGTCTTTGCTGTAAACTTGTAGCATTAAA
CAATCATTGTTGTTAATAGGTCTTCTTTTTGAAACAATTATGTGAAATGTATAGCTGCTTTTGATGGAAAGCAGC
TATTTGCCTTTTTTTTTTCCTTTGAACTTTGAAGCTAGTGCATTGGAAAAATGCACCCTTTCCCTCCTTTGGAA
TGCTGTATTAATGTAGTATAATAATTACTGGTTTTGTAACTTGTTCTGGTAATGTCCTTCCCGGACTCTTTTTAA
ATGTCTCCCCCTAAGTTTTATACTTGATTGTATTATTAGTCTGTTTTAAATGTTTTGCCCGGTTTTTCTCTTCA
ATATTTGTGTATATAAACCGATCTTCGTGATACTGTACATAGCTGTTTGAAATGCCAGAATGACTTCTGACATTC
CAAGTTTTTCACAAAATATATTTTATCTGTGATTAGCCATTTGACTAATAATACTGGCTAACAGATGTTGAAAAA
AATTGTCTGTTTTCTCATTAATTTTGGTCTAAAACATGTTTGCACTTGTCTTTGACTTGTGTTTTATTAACATTG
ATTGGCATATTAAAAGTCACTCTGAGCTT

FIGURE 826

MSFLSRQQPPPPRRAGAACTLRQKLIFSPCSDCEEEEEEEEEEGSGHSTGEDSAFQEPDSPLPPERSPTEPGPER
RRSPGPAPGSPGELEEDLLLPGACPGADEAGGGAEGDSWEEEGFGSSSPVKSPAAPYFLGSSFSPVRCGGPGDAS
PRGCGARRAGEGRRSPRPDHPGTPPHKTFRKLRLFDTPHTPKSLLSKARGIDSSSVKLRGSSLFMDTEKSGKREF
DVRQTPQVNINPFTPDSLLLHSSGQCRRRKRTYWNDSCGEDMEASDYELEDETRPAKRITITESNMKSRYTTEFH
ELEKIGSGEFGSVFKCVKRLDGCIYAIKRSKKPLAGSVDEQNALREVYAHAVLGQHSHVVRYFSAWAEDDHMLIQ
NEYCNGGSLADAISENYRIMSYFKEAELKDLLLQVGRGLRYIHSMSLVHMDIKPSNIFISRTSIPNAASEEGDED
DWASNKVMFKIGDLGHVTRISSPQVEEGDSRFLANEVLQENYTHLPKADIFALALTVVCAAGAEPLPRNGDQWHE
IRQGRLPRIPQVLSQEFTELLKVMIHPDPERRPSAMALVKHSVLLSASRKSAEQLRIELNAEKFKNSLLQKELKK
AQMAKAAAEERALFTDRMATRSTTQSNRTSRLIGKKMNRSVSLTIY

FIGURE 827A

TTGCTGCGTCAACTGTGTTCCCTTTGGCCTGGCTGAGTTTGATACTGTGGGGATTCAGTTTAGGCGCTGGCCCGA
GGATATCCCAGCGGTGGTACTTCGGAGACACCTGTCTGCATCTGACTGAGCCGGCTCTCCTGGCCTCGCGCTGCA
CATTCTCTCCTGGCGGCGGCGCCACCTGCAGTAGCGTTCGCCCGAACATGGCGACACGGAGCAGCAGGAGGGAGT
CGCGACTCCCGTTCCTATTCACCCTGGTCGCACTGCTGCCGCCCGGAGCTCTCTGCGAAGTCTGGACGCAGAGGC
TGCACGGCGGCAGCGCGCCCTTGCCCCAGGACCGGGGCTTCCTCGTGGTGCAGGGCGACCCGCGCGAGCTGCGGC
TGTGGGCGCGCGGGGATGCCAGGGGGGCGAGCCGCGCGGACGAGAAGCCGCTCCGGAGGAAACGGAGCGCTGCCC
TGCAGCCCGAGCCCATCAAGGTGTACGGACAGGTTAGTCTGAATGATTCCCACAATCAGATGGTGGTGCACTGGG
CTGGAGAGAAAAGCAACGTGATCGTGGCCTTGGCCCGAGATAGCCTGGCATTGGCGAGGCCCAAGAGCAGTGATG
TGTACGTGTCTTACGACTATGGAAAATCATTCAAGAAATTTCAGACAAGTTAAACTTTGGCTTGGGAAATAGGA
GTGAAGCTGTTATCGCCCAGTTCTACCACAGCCCTGCGGACAACAAGCGGTACATCTTTGCAGACGCTTATGCCC
AGTACCTCTGGATCACGTTTGACTTCTGCAACACTCTTCAAGGCTTTTCCATCCCATTTCGGGCAGCTGATCTCC
TCCTACACAGTAAGGCCTCCAACCTTCTCTTGGGCTTTGACAGGTCCCACCCCAACAAGCAGCTGTGGAAGTCAG
ATGACTTTGGCCAGACCTGGATCATGATTCAGGAACATGTCAAGTCCTTTTCTTGGGGAATTGATCCCTATGACA
AACCAAATACCATCTACATTGAACGACACGAACCCTCTGGCTACTCCACTGTCTTCCGAAGTACAGATTTCTTCC
AGTCCCGGGAAAACCAGGAAGTGATCCTTGAGGAAGTGAGAGATTTTCAGCTTCGGGACAAGTACATGTTTGCTA
CAAAGGTGGTGCATCTCTTGGGCAGTGAACAGCAGTCTTCTGTCCAGCTCTGGGTCTCCTTTGGCCGGAAGCCCA
TGAGAGCAGCCCAGTTTGTCACAAGACATCCTATTAATGAATATTACATCGCAGATGCCTCCGAGGACCAGGTGT
TTGTGTGTGTCAGCCACAGTAACAACCGCACCAATTTATACATCTCAGAGGCAGAGGGGCTGAAGTTCTCCCTGT
CCTTGGAGAACGTGCTCTATTACAGCCCAGGAGGGGCCGGCAGTGACACCTTGGTGAGGTATTTTGCAAATGAAC
CATTTGCTGACTTCCACCGAGTGGAAGGATTGCAAGGAGTCTACATTGCTACTCTGATTAATGGTTCTATGAATG
AGGAGAACATGAGATCGGTCATCACCTTTGACAAAGGGGGAACCTGGGAGTTTCTTCAGGCTCCAGCCTTCACGG
GATATGGAGAGAAAATCAATTGTGAGCTTTCCCAGGGCTGTTCCCTTCATCTGGCTCAGCGCCTCAGTCAGCTCC
TCAACCTCCAGCTCCGGAGAATGCCCATCCTGTCCAAGGAGTCGGCTCCAGGCCTCATCATCGCCACTGGCTCAG
TGGGAAAGAACTTGGCTAGCAAGACAAACGTGTACATCTCTAGCAGTGCTGGAGCCAGGTGGCGAGAGGCACTTC
CTGGACCTCACTACTACACATGGGGAGACCACGGCGGAATCATCACGGCCATTGCCCAGGGCATGGAAACCAACG
AGCTAAAATACAGTACCAATGAAGGGGAGACCTGGAAAACATTCATCTTCTCTGAGAAGCCAGTGTTTGTGTATG
GCCTCCTCACAGAACCTGGGGAGAAGAGCACTGTCTTCACCATCTTTGGCTCGAACAAAGAGAATGTCCACAGCT
GGCTGATCCTCCAGGTCAATGCCACGGATGCCTTGGGAGTTCCCTGCACAGAGAATGACTACAAGCTGTGGTCAC
CATCTGATGAGCGGGGGAATGAGTGTTTGCTGGGACACAAGACTGTTTTCAAACGGCGGACCCCCCATGCCACAT
GCTTCAATGGAGAGGACTTTGACAGGCCGGTGGTCGTGTCCAACTGCTCCTGCACCCGGGAGGACTATGAGTGTG
ACTTCGGTTTCAAGATGAGTGAAGATTTGTCATTAGAGGTTTGTGTTCCAGATCCGGAATTTTCTGGAAAGTCAT
ACTCCCCTCCTGTGCCTTGCCCTGTGGGTTCTACTTACAGGAGAACGAGAGGCTACCGGAAGATTTCTGGGGACA
CTTGTAGCGGAGGAGATGTTGAAGCGCGACTGGAAGGAGAGCTGGTCCCCTGTCCCCTGGCAGAAGAGAACGAGT
TCATTCTGTATGCTGTGAGGAAATCCATCTACCGCTATGACCTGGCCTCGGGAGCCACCGAGCAGTTGCCTCTCA
CCGGGCTACGGGCAGCAGTGGCCCTGGACTTTGACTATGAGCACAACTGTTTGTATTGGTCCGACCTGGCCTTGG
ACGTCATCCAGCGCCTCTGTTTGAATGGAAGCACAGGGCAAGAGGTGATCATCAATTCTGGCCTGGAGACAGTAG
AAGCTTTGGCTTTTGAACCCCTCAGCCAGCTGCTTTACTGGGTAGATGCAGGCTTCAAAAAGATTGAGGTAGCTA
ATCCAGATGGCGACTTCCGACTCACAATCGTCAATTCCTCTGTGCTTGATCGTCCCAGGGCTCTGGTCCTCGTGC
CCCAAGAGGGGGTGATGTTCTGGACAGACTGGGGAGACCTGAAGCCTGGGATTTATCGGAGCAATATGGATGGTT
CTGCTGCCTATCACCTGGTGTCTGAGGATGTGAAGTGGCCCAATGGCATCTCTGTGGACGACCAGTGGATTTACT
GGACGGATGCCTACCTGGAGTGCATAGAGCGGATCACGTTCAGTGGCCAGCAGCGCTCTGTCATTCTGGACAACC
TCCCGCACCCCTATGCCATTGCTGTCTTTAAGAATGAAATCTACTGGGATGACTGGTCACAGCTCAGCATATTCC
GAGCTTCCAAATACAGTGGGTCCCAGATGGAGATTCTGGCAAACCAGCTCACGGGGCTCATGGACATGAAGATTT
TCTACAAGGGGAAGAACACTGGAAGCAATGCCTGTGTGCCCAGGCCATGCAGCCTGCTGTGCCTGCCCAAGGCCA
ACAACAGTAGAAGCTGCAGGTGTCCAGAGGATGTGTCCAGCAGTGTGCTTCCATCAGGGGACCTGATGTGTGACT
GCCCTCAGGGCTATCAGCTCAAGAACAATACCTGTGTCAAAGAAGAGAACACCTGTCTTCGCAACCAGTATCGCT
GCAGCAACGGGAACTGTATCAACAGCATTTGGTGGTGTGACTTTGACAACGACTGTGGAGACATGAGCGATGAGA
GAAACTGCCCTACCACCATCTGTGACCTGGACACCCAGTTTCGTTGCCAGGAGTCTGGGACTTGTATCCCACTGT

FIGURE 827B

CCTATAAATGTGACCTTGAGGATGACTGTGGAGACAACAGTGATGAAAGTCATTGTGAAATGCACCAGTGCCGGA
GTGACGAGTACAACTGCAGTTCCGGCATGTGCATCCGCTCCTCCTGGGTATGTGACGGGGACAACGACTGCAGGG
ACTGGTCTGATGAAGCCAACTGTACCGCCATCTATCACACCTGTGAGGCCTCCAACTTCCAGTGCCGAAACGGGC
ACTGCATCCCCCAGCGGTGGGCGTGTGACGGGGATACGGACTGCCAGGATGGTTCCGATGAGGATCCAGTCAACT
GTGAGAAGAAGTGCAATGGATTCCGCTGCCCAAACGGCACTTGCATCCCATCCAGCAAACATTGTGATGGTCTGC
GTGATTGCTCTGATGGCTCCGATGAACAGCACTGCGAGCCCCTCTGTACGCACTTCATGGACTTTGTGTGTAAGA
ACCGCCAGCAGTGCCTGTTCCACTCCATGGTCTGTGACGGAATCATCCAGTGCCGCGACGGGTCCGATGAGGATG
CGGCGTTTGCAGGATGCTCCCAAGATCCTGAGTTCCACAAGGTATGTGATGAGTTCGGTTTCCAGTGTCAGAATG
GAGTGTGCATCAGTTTGATTTGGAAGTGCGACGGGATGGATGATTGCGGCGATTATTCTGATGAAGCCAACTGCG
AAAACCCCACAGAAGCCCCAAACTGCTCCCGCTACTTCCAGTTTCGGTGTGAGAATGGCCACTGCATCCCCAACA
GATGGAAATGTGACAGGGAGAACGACTGTGGGGACTGGTCTGATGAGAAGGATTGTGGAGATTCACATATTCTTC
CCTTCTCGACTCCTGGGCCCTCCACGTGTCTGCCCAATTACTACCGCTGCAGCAGTGGGACCTGCGTGATGGACA
CCTGGGTGTGCGACGGGTACCGAGATTGTGCAGATGGCTCTGACGAGGAAGCCTGCCCCTTGCTTGCAAACGTCA
CTGCTGCCTCCACTCCCACCCAACTTGGGCGATGTGACCGATTTGAGTTCGAATGCCACCAACCGAAGACGTGTA
TTCCCAACTGGAAGCGCTGTGACGGCCACCAAGATTGCCAGGATGGCCGGGACGAGGCCAATTGCCCCACACACA
GCACCTTGACTTGCATGAGCAGGGAGTTCCAGTGCGAGGACGGGGAGGCCTGCATTGTGCTCTCGGAGCGCTGCG
ACGGCTTCCTGGACTGCTCGGACGAGAGCGATGAAAAGGCCTGCAGTGATGAGTTGACTGTGTACAAAGTACAGA
ATCTTCAGTGGACAGCTGACTTCTCTGGGGATGTGACTTTGACCTGGATGAGGCCCAAAAAAATGCCCTCTGCAT
CTTGTGTATATAATGTCTACTACAGGGTGGTTGGAGAGAGCATATGGAAGACTCTGGAGACCCACAGCAATAAGA
CAAACACTGTATTAAAAGTCTTGAAACCAGATACCACGTATCAGGTTAAAGTACAGGTTCAGTGTCTCAGCAAGG
CACACAACACCAATGACTTTGTGACCCTGAGGACCCCAGAGGGATTGCCAGATGCCCCTCGAAATCTCCAGCTGT
CACTCCCCAGGGAAGCAGAAGGTGTGATTGTAGGCCACTGGGCTCCTCCCATCCACACCCATGGCCTCATCCGTG
AGTACATTGTAGAATACAGCAGGAGTGGTTCCAAGATGTGGGCCTCCCAGAGGGCTGCTAGTAACTTTACAGAAA
TCAAGAACTTATTGGTCAACACTCTATACACCGTCAGAGTGGCTGCGGTGACTAGTCGTGGAATAGGAAACTGGA
GCGATTCTAAATCCATTACCACCATAAAAGGAAAAGTGATCCCACCACCAGATATCCACATTGACAGCTATGGTG
AAAATTATCTAAGCTTCACCCTGACCATGGAGAGTGATATCAAGGTGAATGGCTATGTGGTGAACCTTTTCTGGG
CATTTGACACCCACAAGCAAGAGAGGAGAACTTTGAACTTCCGAGGAAGCATATTGTCACACAAAGTTGGCAATC
TGACAGCTCATACATCCTATGAGATTTCTGCCTGGGCCAAGACTGACTTGGGGGATAGCCCTCTGGCATTTGAGC
ATGTTATGACCAGAGGGGTTCGCCCACCTGCACCTAGCCTCAAGGCCAAAGCCATCAACCAGACTGCAGTGGAAT
GTACCTGGACCGGCCCCCGGAATGTGGTTTATGGTATTTTCTATGCCACGTCCTTTCTTGACCTCTATCGCAACC
CGAAGAGCTTGACTACTTCACTCCACAACAAGACGGTCATTGTCAGTAAGGATGAGCAGTATTTGTTTCTGGTCC
GTGTAGTGGTACCCTACCAGGGGCCATCCTCTGACTACGTTGTAGTGAAGATGATCCCGGACAGCAGGCTTCCAC
CCCGTCACCTGCATGTGGTTCATACGGGCAAAAACCTCCGTGGTCATCAAGTGGGAATCACCGTATGACTCTCCTG
ACCAGGACTTGTTGTATGCAATTGCAGTCAAAGATCTCATAAGAAAGACTGACAGGAGCTACAAAGTAAAATCCC
GTAACAGCACTGTGGAATACACCCTTAACAAGTTGGAGCCTGGCGGGAAATACCACATCATTGTCCAACTGGGGA
ACATGAGCAAAGATTCCAGCATAAAAATTACCACAGTTTCATTATCAGCACCTGATGCCTTAAAAATCATAACAG
AAAATGATCATGTTCTTCTGTTTTGGAAAAGCCTGGCTTTAAAGGAAAGCATTTTAATGAAAGCAGGGGCTATG
AGATACACATGTTTGATAGTGCCATGAATATCACAGCTTACCTTGGGAATACTACTGACAATTTCTTTAAAATTT
CCAACCTGAAGATGGGTCATAATTACACGTTCACCGTCCAAGCAAGATGCCTTTTTGGCAACCAGATCTGTGGGG
AGCCTGCCATCCTGCTGTACGATGAGCTGGGGTCTGGTGCAGATGCATCTGCAACGCAGGCTGCCAGATCTACGG
ATGTTGCTGCTGTGGTGGTGCCCATCTTATTCCTGATACTGCTGAGCCTGGGGGTGGGGTTTGCCATCCTGTACA
CGAAGCACCGGAGGCTGCAGAGCAGCTTCACCGCCTTCGCCAACAGCCACTACAGCTCCAGGCTGGGGTCCGCAA
TCTTCTCCTCTGGGGATGACCTGGGGGAAGATGATGAAGATGCCCCTATGATAACTGGATTTTCAGATGACGTCC
CCATGGTGATAGCC**TGA**AAGAGCTTTCCTCACTAGAAACCAAATGGTGTAAATATTTTATTTGATAAAGATAGTT
GATGGTTTATTTTAAAAGATGCACTTTGAGTTGCAATATGTTATTTTTATATGGGCCAAAAACNNNNNNNNNNNN
NNNNNNNNNNNNNNNNNNNGGAATGAATAAACTTTGTAGTAATCAACTGTGAACTTCAAACCAGGTTGATTTTA
GTAACCCAATTGCTTTGATTTGACATTAATGTAGTCTTACAGGGCTGTGCTTGCTGGGCATGCTTTTACGTCTGT
GAGATAATTTCGGTTCAGTAAATTGGCCAATCTTTTTATTTTTCTAAGACACAGAAATGTATTTAATAAAAACCT

FIGURE 827C

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CGAGAGAGTGATGGGTGGAACCCCTTCTCCTTGAAAGTGTGTACAGATATTCCATTTTGTTTGGATATAGTTTAT
AGGAAAGTGTGTGGATGTATTATGGCGGAAGGTTTCTTTATGTTATTTTGTTAATTTATTGGGACTCTGTGTAAG
GCCAGGCTTTAGTGGTCATTAGACACCACATGTGTTATGAGCCCCTTACCCATAGGGTTGGGGGTGGGAAGAGAA
GCATATTTTTTTGCCATTCCGGAAGCAATCCATTTTTATTCACTTGTGTGTCATGTAATGGTCTTTGGCAGGAGA
GAGCACTGAGTCATTGCTGGAGTTCAGTTCAACAGAGCTGCAGCTTGGGAAGCCCTGTAAGCCCACAGCTTCCTC
TCTTATATTAATTGATGGAATTTTACTGTATGTGCCTCTGTACAAGATGTAGCTTTGAGAGCTACAAAATGATAA
CACTGCTTTATTACACACTGGTTTCATTGTCATTGCAAAAACTTACCCTGGTTGTGGGGGAGAGTTCTAGATCTG
TGCCATGATCCATACACTGGCTAATAGAGTACATAATTTTTCCATTTTCCATTTTTGTTTTTACTTACTACTGA
AGGATCTCAGATGTAAAATTATGTATTTGGTTTGAGATGGCCACTTATTGTCCTTAAAAATCCATACTGATATAT
GCAGTCATTTTGAATTGGACAGTGCCTTCTCTTTTTTTTCTCCTCTTCTTCCATCTCCCTCACCCATGCCCCCA
CCCAATCTAAAGAGACAGTGCTGTACATTCTCATAGAGATAGAGAAGATCTAAAAAGTTGAGACTACTCAATCCA
GTTAACAACAGCAGGAGCACTAGAGTTTGTTCATTTATTCTCTCTGTAAAACAAGCTGTGCTTTTTTTCTTCTGC
CTTTAAAATGCCACCCGTGTATTCAAACCATGGCCACTTGATACTTATGTAGAATCCATCGTGGGCTGATGCAAG
CCCTTTATTTAGGCTTAGTGTTGTGGGCACCAATGTCGAGCATCGTTGTGACTTGTGCTGTATGATTCTCACTGA
AGAATTTCCTTTCAGCCAAGAAGCAGTGAGGTCTGGGAATATTCCAAAGTCATGTCTCTGAATATGTGTCCTTGA
CGTGCAAGCTTTGTAAAACCCCATCCCCGCTTAGGTGCGAGGCATCACCTTCTCACAAGTGTTAGTTTCTTTTA
ACCACAAGTATCATTCTTGGGTGATAATATAGTTTCATTCTACTTAGGGATTGTTTAGAAAACAAAGAAAGAGCC
AATTAAATTTTTTAGTTTTTGAAATTTTTATTTATATGTATACTTAGATGAGTATTTTAAGCTGTCGACCTTTAG
TTTGCCATACGGGTAGGACTGTATTTCATGTTAACAACTGGTGGTAATGATAAGCCTTCTTCTAGCGTATTTTCT
CTTCTTTCCTGTCACTTTCCTAAGTTTTTTTTTTTAAAGACTGGAATTTTTTTTGGCTTTATCTTGTCTTACCGT
AGAGATTTGTTCAAAACTCTAAGCCCTACCACCTCCCCTTTAATAAGCTCTTTAAATAGTTGAATCATTAACAAC
CTGGTGGGAGGCAAGTCATTTAATTGAACCACTAGGAAGTGTATTTTCTTTTCTTTTTCTGCCAACTTTTTGGTG
GCATTTGTAAAAGCTGATATAAAAGGCTCTGAGATGTTATTTTCAGTTATTCCATAGGCAAGCCTTTTTACAGAG
CATATGTCTCCAGTTGGCAGCTTGAGATATTTCCGAGCATCCGGTTCTAGCTACCAGTGCCTCCCAATGCTTAGT
GCACAGTACTGTAGACTGGCCATCACCCCTCTCCTTGGAAAATGCCACTGTGCTGTTTGAAAAAAAGCAGCCTTT
TAGGGCTAGAGTATTTTATATAAACAGAAGAGCTAAGTTCCTGAAGACTAAGCTAGATAGCTGCAGCTATATGTA
AATTGTATATTTTTATGAACTTTTGAAGCACACACTCCTGTTTCCCTCTGTGTAGCTTTGTGGGGATTTCATGTA
TATATGCTGTCTGAAAGAATCCAGAGGTTGGAGTGCCAATAGAAAATGAAAACAAATGCCTTGTACTACAGGCAG
CCTCTGAAGGTGACCACATAACTGTCTTCACTGTGACCAATCGGAGTCCCTGCTTGCTTGTGAAGAAGGGGCTTT
TGTACCTTGTTGGAGATGCCACCTCAGAAGTTCACACTGTGCAGGAAAAAGGTTTTATTCTCTCCTGGCATACAT
TAGAATGTCAGATGCCTGCATCCATGTGGACCACGATGGGCCTCTAAAAATTGGTGGGCAGGGGGTTTGCTTATG
AGTTTTCTCTGGAAACCGATTTTACTCCTGGATGTATTGAATGCCCCTTGAGCTTTATGAGATACGAGTCCACAT
GGATAAAATGTTAGAGAGTGGAGTTCTACAGAGGATTCCAGGAAGAGGCCATGTCTGTGCAGTCCTAGTTCCAGA
CAGGTGAGAAGCTCCAGGAACTACTGGCTACCTTGACAAGCTGGGTAAATAGTTATCATTCTGGGTAACTGGTTG
AAACTCTGACTTTTGGACAAGTAATTCCTGGGGTTCTGTCTTTGGTAGCATCACCAGGGATATTTGGGTGGGACA
GACAGAAGACACACAGCTGCCTGTTCTCTCCTGCCCATCATGTTTGGCCCACTAGATGAAGCTGTACTCAGCAAT
TTAGGGAATGTAACCCTTCTCAGAACTGGCCATTTTCAGGGGAAGCTTGGGAGAGCAATAGTATGGTGAGCCCCT
TAGAGATGAGCGCCTACTCCTTCTTGGCGAATGCTGCCTTCAGATGCTTACCAAGTGGTCACTGCATCTAGTAAG
ATTATATTTCCAGTACACTTCCTTAGGGCAGAAACACCATCCTATCAGGTTTGGTCAGTCCCTTCTTCATGAAGG
GAGTCATGGGGAATTCCTGAAAATTTTCTTCCTTCTGCAGACAGTTGGATGAGTCCCTTAGAGAAGGCATCCAGA
GACATAACTAAACTGAATATCATCCATATTGATTTAGGAATTGACTCTAAAACTCTGTGCAGAATCTTGTGTT
GGGATTGTATCTTGACATTCCTGTTGTGTTATTTTTCTTAACTGGAGTGTGTGCTGCCTTTCAGGTACAATTTTT
GTGTAATAAAAGCCAGTGCATTAAGTTTATATAGACTACTTTCTATGCAAGACTGAGATATGGAATAGATAGGAA
GAGATATGTACTGCTGGGTACATGGACAGTAAGTGTGTTTTCAGATGGAGTACCAGCACCGAAAATGGGTTGAGG
GAGGATGGGTTGTATGTATGTTTCTGCCCACTAATTTTGAGCAGCCATATTATGAATTAAATCGTCACAGCCAAG
TAATAACCCAAGAATGGTATGAGTTTCATGTGTAATAGCTCAAATGGAATAAGCATGAATGCTGGAGTGGACCAT
TATCCTCAAATATTCTATGTCACTTCTCATTTAAAGACTCTTGTTATGAACTATTAGAAACTTTAGGCAAAATCA
AAAGTATTTGCGGCAAAATAAAGGCCTATTCTACTCTTATTTAAAGTGAAACACTGTATACTTGTTTCTCTCCAA
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FIGURE 827D

AGCGAAATTAAGTATTTATAATTTCAATTGCCTCGATAAGTTTCCAAGTCACTGAAATCTGCTGAAGGTTTTACT
GTATTGTTGCACAACTTTAAGATAATTTTTGTCTCAATGTCAACTTTTTTCACTGAATAAAAATTTAACTGGGTC
AAGAAAACACCTCTTTGAAAATCCACTGTCTCTGTGTGTCTCGAGCTGTTCTTTAGAGCGCAATAAAGATGGCTG
ACGCAGTCTCCAAACCCC

FIGURE 828

AASTVFPLAWLSLILWGFSLGAGPRISQRWYFGDTCLHLTEPALLASRCTFSPGGGATCSSVRPNMATRSSRRES
RLPFLFTLVALLPPGALCEVWTQRLHGGSAPLPQDRGFLVVQGDPRELRLWARGDARGASRADEKPLRRKRSAAL
QPEPIKVYGQVSLNDSHNQMVVHWAGEKSNVIVALARDSLALARPKSSDVYVSYDYGKSFKKISDKLNFGLGNRS
EAVIAQFYHSPADNKRYIFADAYAQYLWITFDFCNTLQGFSIPFRAADLLLHSKASNLLLGFDRSHPNKQLWKSD
DFGQTWIMIQEHVKSFSWGIDPYDKPNTIYIERHEPSGYSTVFRSTDFFQSRENQEVILEEVRDFQLRDKYMFAT
KVVHLLGSEQQSSVQLWVSFGRKPMRAAQFVTRHPINEYYIADASEDQVFVCVSHSNNRTNLYISEAEGLKFSLS
LENVLYYSPGGAGSDTLVRYFANEPFADFHRVEGLQGVYIATLINGSMNEENMRSVITFDKGGTWEFLQAPAFTG
YGEKINCELSQGCSLHLAQRLSQLLNLQLRRMPILSKESAPGLIIATGSVGKNLASKTNVYISSSAGARWREALP
GPHYYTWGDHGGIITAIAQGMETNELKYSTNEGETWKTFIFSEKPVFVYGLLTEPGEKSTVFTIFGSNKENVHSW
LILQVNATDALGVPCTENDYKLWSPSDERGNECLLGHKTVFKRRTPHATCFNGEDFDRPVVVSNCSCTREDYECD
FGFKMSEDLSLEVCVPDPEFSGKSYSPPVPCPVGSTYRRTRGYRKISGDTCSGGDVEARLEGELVPCPLAEENEF
ILYAVRKSIYRYDLASGATEQLPLTGLRAAVALDFDYEHNCLYWSDLALDVIQRLCLNGSTGQEVIINSGLETVE
ALAFEPLSQLLYWVDAGFKKIEVANPDGDFRLTIVNSSVLDRPRALVLVPQEGVMFWTDWGDLKPGIYRSNMDGS
AAYHLVSEDVKWPNGISVDDQWIYWTDAYLECIERITFSGQQRSVILDNLPHPYAIAVFKNEIYWDDWSQLSIFR
ASKYSGSQMEILANQLTGLMDMKIFYKGKNTGSNACVPRPCSLLCLPKANNSRSCRCPEDVSSSVLPSGDLMCDC
PQGYQLKNNTCVKEENTCLRNQYRCSNGNCINSIWWCDFDNDCGDMSDERNCPTTICDLDTQFRCQESGTCIPLS
YKCDLEDDCGDNSDESHCEMHQCRSDEYNCSSGMCIRSSWVCDGDNDCRDWSDEANCTAIYHTCEASNFQCRNGH
CIPQRWACDGDTDCQDGSDEDPVNCEKKCNGFRCPNGTCIPSSKHCDGLRDCSDGSDEQHCEPLCTHFMDFVCKN
RQQCLFHSMVCDGIIQCRDGSDEDAAFAGCSQDPEFHKVCDEFGFQCQNGVCISLIWKCDGMDDCGDYSDEANCE
NPTEAPNCSRYFQFRCENGHCIPNRWKCDRENDCGDWSDEKDCGDSHILPFSTPGPSTCLPNYYRCSSGTCVMDT
WVCDGYRDCADGSDEEACPLLANVTAASTPTQLGRCDRFEFECHQPKTCIPNWKRCDGHQDCQDGRDEANCPTHS
TLTCMSREFQCEDGEACIVLSERCDGFLDCSDESDEKACSDELTVYKVQNLQWTADFSGDVTLTWMRPKKMPSAS
CVYNVYYRVVGESIWKTLETHSNKTNTVLKVLKPDTTYQVKVQVQCLSKAHNTNDFVTLRTPEGLPDAPRNLQLS
LPREAEGVIVGHWAPPIHTHGLIREYIVEYSRSGSKMWASQRAASNFTEIKNLLVNTLYTVRVAAVTSRGIGNWS
DSKSITTIKGKVIPPPDIHIDSYGENYLSFTLTMESDIKVNGYVVNLFWAFDTHKQERRTLNFRGSILSHKVGNL
TAHTSYEISAWAKTDLGDSPLAFEHVMTRGVRPPAPSLKAKAINQTAVECTWTGPRNVVYGIFYATSFLDLYRNP
KSLTTSLHNKTVIVSKDEQYLFLVRVVVPYQGPSSDYVVVKMIPDSRLPPRHLHVVHTGKTSVVIKWESPYDSPD
QDLLYAIAVKDLIRKTDRSYKVKSRNSTVEYTLNKLEPGGKYHIIVQLGNMSKDSSIKITTVSLSAPDALKIITE
NDHVLLFWKSLALKEKHFNESRGYEIHMFDSAMNITAYLGNTTDNFFKISNLKMGHNYTFTVQARCLFGNQICGE
PAILLYDELGSGADASATQAARSTDVAAVVVPILFLILLSLGVGFAILYTKHRRLQSSFTAFANSHYSSRLGSAI
FSSGDDLGEDDEDAPMITGFSDDVPMVIA

FIGURE 829

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AGGCGCTGCGGAGACGCGTAGAGGAGCGCGCCCCCCGGCCGMTGCCGMCCCTGGCCCGTGCCGTCACCCCGCTTC
TCCGCGCCTCGGGCGGTACCCAGCCAGTCCCCAGCGCCGCGCTACCGCGCTGACCGGCCCTCCAGACGCCTCCCG
GTACCCGGGACCCCAGCCCGGCCGCTCGCCCGCAGCCCGCCGGCCGCACACGTCCCCGGAGCCGGGCCTAGGGCG
GGCGGCAGGGCGGCTCGGCGCAGTCAGGCTGGGCTCTGTAGCGTCCCCATGGCCGCGGCCGGCTGGCGGGACGGC
TCCGGCCAGGAGAAGTACCGGCTCGTGGTGGTCGGCGGGGGCGGCGTGGGCAAGTCGGCGCTCACCATCCAGTTC
ATCCAGTCCTATTTTGTAACGGATTATGATCCAACCATTGAAGATTCTTACACAAAGCAGTGTGTGATAGATGAC
AGAGCAGCCCGGCTAGATATTTTGGATACAGCAGGACAAGAAGAGTTTGGAGCCATGAGAGAACAGTATATGAGG
ACTGGCGAAGGCTTCCTGTTGGTCTTTTCAGTCACAGATAGAGGCAGTTTTGAAGAAATCTATAAGTTTCAAAGA
CAGATTCTCAGAGTAAAGGATCGTGATGAGTTCCCAATGATTTTAATTGGTAATAAAGCAGATCTGGATCATCAA
AGACAGGTAACACAGGAAGAAGGACAACAGTTAGCACGGCAGCTTAAGGTAACATACATGGAGGCATCAGCAAAG
ATTAGGATGAATGTAGATCAAGCTTTCCATGAACTTGTCCGGGTTATCAGGAAATTTCAAGAGCAGGAATGTCCT
CCTTCACCAGAACCAACACGGAAAGAAAAAGACAAGAAAGGCTGCCATTGTGTCATTTTCTAGAATCCCTTCAGT
TTTAGCTACCAACGGCCAGGAAAAGCCCTCATCTTCTCTTTCTCCTCAGTTACATCTTGTTGGTACCTTTCT
AGCCTTAGACAAATGATCACCATGTTAGCCTTAGACGAAGAAGCTGGCTAGTCCTTTCTGTGAAGCTAATACAAT
GGTCATTTCCAGACAAATTTAAAGGAAACACTAAGGCTGCTTCAAAGATTATCTGATTCCTTTAAAATATATGTC
TATATACACAGACATGCTCTTTTTTTAAGTGCTTACATTTTAATAGAGATGAATCAGTTTTGGAATCTAAGCTGT
TTGCCAAGCTGAAGCTACAGGTTGTGAAATAATTTTTAACTTTTGGAATCATACTGCCTACTGTTACTCTAAATA
GAAATATAGGGTTTTTTTTAATGTGAATTTTTGCCTATCTTTAAACATTTCAATGTCAGCCTTTGTTAACCTTAA
ATACACTGAATTGAATCTACAAAAGTGAACCATCTCAGACCTTTACTGATACTACAACTTTTGTTTTCTGATGGC
CAAAATACCAAATGCCTGTTGTATTTATGGATTAAAAACTGCTTATAAAACCCTGTGTTACTACTCCTACTCTTG
GAGATGATAATATTCTATGTGGTCAAATATTTGGACTCATTTAGGACTTAGATATTTCAGTGTACTTGATTTTTT
AATTTAACTCTTTTTCACAGCCACGCTAAGGGTAAAAAGGAATAATTTCCTTCTGTCTTCCTTTTCAAGTATTTC
TGGGTAAGGGATTCAAAAAACTAAAACTGTTTTTGTTTGTAATATAAAATATGGAATTGATCTTTCCAGGGTCAG
AGATGATTAATGTTTTTGCTATATACTTTTATACATTATTTTCTTATCAAACTAGTTAACAAGTATTTTATATG
TTTGTAAGCAGATATGCTTTCATAGCATACCTTGTGTATATGTAAAGATAAGTATTTAATTCTCACTGTTCACTT
TTAACTGACAAAGAAAAACAAGTGGAAACTACAGAAACTGTGGTAGAACTTTTACTTGCTGGTCTGGTCTTGGTT
GTACCCATCTTTGGCCAGTCACATAACTACTCAAGAAACCTTCCCAATAGAGTACAACAGGATGAGACTCTGAAA
TCACTTTCAGTATTCCCTGCTAGATATTGATTGTTATTTCAAGTATTAAGTGTAAGCTTTTAATGGATAATTAGT
ATAACTGTGGATGGCATCTGATTTTGTTTTTAATTCTGTGGATTGTGTTTAAGCAATTCAATAGTATGTTCCTGA
TTTTGAGATGCTAAGTGGTATTGCACAGTTGTCACTTTATCAAGTGTGTACAACAGTCCCATGAAGTTTATAGAG
CATACCCTTGTATAGCTTCAGGTGCTAGAATTAAAATTGATCTGTTATCACAAAAAAAAAAAAAAAAAAAAAAGG
CTCTTTAATTAGGCG
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FIGURE 830

CGCGCCTCGGGCGGTACCCAGCCAGTCCCCAGCGCCGCGCTACCGCGCTGACCGGCCCTCCAGACGCCTCCCGGT
ACCCGGGACCCCAGCCCGGCCGCTCGCCCGCAGCCCGCCGGCCGCACACGTCCCCGGAGCCGGGCCTAGGGCGGG
CGGCAGCGGCGGCTCGGCGCAGTCAGGCTGGGCTCTGTAGCGTCCCC**ATG**GCCGCGGCCGGCTGGCGGGACGGCT
CCGGCCAGGAGAAGTACCGGCTCGTGGTGGTCGGCGGGGGCGGCGTGGGCAAGTCGGCGCTCACCATCCAGTTCA
TCCAGTCCTATTTTGTAACGGATTATGATCCAACCATTGAAGATTCTTACACAAAGCAGTGTGTGATAGATGACA
GAGCAGCCCGGCTAGATATTTTGGATACAGCAGGACAAGAAGAGTTTGGAGCCATGAGAGAACAGTATATGAGGA
CTGGCGAAGGCTTCCTGTTGGTCTTTTCAGTCACAGATAGAGGCAGTTTTGAAGAAATCTATAAGTTTCAAAGAC
AGATTCTCAGAGTAAAGGATCGTGATGAGTTCCCAATGATTTTAATTGGTAATAAAGCAGATCTGGATCATCAAA
GACAGGTAACACAGGAAGAAGGACAACAGTTAGCACGGCAGCTTAAGGTAACATACATGGAGGCATCAGCAAAGA
TTAGGATGAATGTAGATCAAGCTTTCCATGAACTTGTCCGGGTTATCAGGAAATTTCAAGAGCAGGAATGTCCTC
CTTCACCAGAACCAACACGGAAAGAAAAAGACAAGAAAGGCTGCCATTGTGTCATTTTC**TAG**AATCCCTTCAGTT
TTAGCTACCAACGGCCAGGAAAAGCCCTCATCTTCTCTTTCTCTCCTCAGTTTACATCTTGTTGGTACCTTTCTA
GCCTTAGACAAATGATCACCATGTTAGCCTTAGACCAAGAAGCTGGCTAGTCCTTTCTGTGAAGCTAATACAATG
GTCATTTCCAGACAAATTTAAAGGAAACACTAAGGCTGCTTCAAAGATTATCTGATTCCTTTAAAATATATGTCT
ATATACACAGACATGCTCTTTTTTTAAGTGCTTACATTTAATAGAGATGAATCAGTTTTGGAATCTAAGCTGTT
TGCCAAGCTGAAGCTACAGGTTGTGAAATAATTTTTAACTTTTGGAATCATACTGCCTACTGTTACTCTAAATAG
AAATATAGGGTTTTTTTTAATGTGAATTTTTGCCTATCTTTAAACATTTCAATGTCAGCCTTTGTTAACCTTAAA
TACACTGAATTGAATCTACAAAAGTGAACCATCTCAGACCTTTACTGATACTACAACTTTTGTTTTCTGATGGCC
AAAATACCAAATGCCTGTTGTATTTATGGATTAAAAACTGCTTATAAAAAAAAAAAAAAA

FIGURE 831

MAAAGWRDGSGQEKYRLVVVGGGGVGKSALTIQFIQSYFVTDYDPTIEDSYTKQCVIDDRAARLDILDTAGQEEF
GAMREQYMRTGEGFLLVFSVTDRGSFEEIYKFQRQILRVKDRDEFPMILIGNKADLDHQRQVTQEEGQQLARQLK
VTYMEASAKIRMNVDQAFHELVRVIRKFQEQECPPSPEPTRKEKDKKGCHCVIF

FIGURE 832

TTAAGCACTTGTTTTGGGTACAAGGCATTTCTGACATTTTATAAACCTACATTTAAGGGGAATTTT**TAA**AGGAAA
TGTTTTTTCTTTTTTTTTTGTTTTTCGAGGGGGCAAGGAGGGACAGAAAAGTAACCTCTTCTTAAGTGGAATATT
CTAATAAGCTACCTTTTGTAAGTGCCATGTTTATTATCTAATCATTCCAAGTTTTGCATTGATGTCTGACTGCCA
CTCCTTTCTTTCAAGGACAGTGTTTTTTGTAGTAAAATCACTGGTTTATACAAAGCTTTATTTAGGGGGTAAAGT
TAAGCTGCTAAAACCCCATGTTGGCTGCTGCTGTTGAGATACTGTGCTTTGGGAGTAAAAAAAGAAAGTTATTTC
TTTGTCTTAAAGAATTTTTAAAAAATTAGTCATGAGACTTATTCATCTTTCCAGGGAACATACTGATTGGTCTTA
AAAGACTAGACAGTTAAGTAAAAGGTGGCTGGAACATCTATTTTTCTACAAAACTGGAAAAATGAACCTGGTTCT
AGAAGAATGTACACCAAAATAAAACATGTGAAGCAGTATTGATTCTTT

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FIGURE 833

LSTCFGYKAFLTFYKPTFKGNF

FIGURE 834

GCACGAGCATAGACTTTTAAACTGGTACGGTTCTTAGAG**ATG**GTCCTTGGCCTTCTGTTGTTGTTGTKGTTTTTT
TCTTTTTCTTCTTCTCCTTCTCCTTCTTCTTCTCTTCTCCTTCTTTCTTCTTTTTTTTTTTCAGAGTCTTGCTCTG
TCACCAAGACTGGAG**TGA**AGTGATGTGATCTCGGCTTACTGCAACCTGGGAGGCAGAGGTTGCAGTGAGTCGAGA
TGGTGCCATTGCTCTCGTTTGGGCAACAAGAGTGAAACTCTTGTCTCAAAAAAAAAAAAAAAAATGAGGTTTAAGA
CAGTTTTGTCATTACTGGTGGGATCTGGTCACACAAGATAGCATTAAACGTGACATGGCACATAAAATTGGTTAA
AAAATTTTGTTTTTTAATTACGTAATGTAAAAGCCCAACAAACACTTTATGCAAGATTGGAATGTATCTTCAAAT
TCAGATTTAATAAACATGTAAAGATCCTCTGTATATAAAAGTTGTATTTAATCCCTTGTGCCCCAAGAATGCTAT
AAAAGATCCCAAGAATGTTATCTATGAAAAGATAGCAATAGGGAATGGTGAACAAATAATTTAATTTGCCAATTC
TAAAAAACATGGACTTAAACCCCATGAAAACTTGGTTCCATAGTTTTAACTGTTTTATGGTTCCAATACAAAACC
AGAGTGGTTTACATTCCACAATXACCAAATTTGCATCCAATXTTGGGGTAATTTTXGGTATTTGCCATGGGATAC
TATTCATTTT

FIGURE 835

MVLGLLLLLXFFSFSSSPSPSSSLLLLLSSFFFQSLALSPRLE

FIGURE 836

TGTCGGGGACGGTAACCGGGACCCGTGCTCTGCTCCTGTCGCCTTCGCCTCCTGAATCCCTAGCCA**ATG**CGTGA
GTGCATCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGCAATGCCTGCTGGGAGCTCTACTGCCTGGAACA
CGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATTGGGGGAGGAGATGACTCCTTCAACACCTTCTT
CAGTGAGACGGGCGCTGGCAAGCACGTGCCCCGGGCTGTGTTTGTAGACTTGGAACCCACAGTCATTGATGAAGT
TCGCACTGGCACCTACCGCCAGCTCTTCCACCCTGAGCAGCTCATCACAGGCAAGGAAGATGCTGCCAATAACTA
TGCCCGAGGGCACTACACCATTGGCAAGGAGATCATTGACCTTGTGTTGGACCGAATTCGCAAGCTGGCTGACCA
GTGCACCCGTCTTCAGGGCTTCTTGGTTTTCCACAGCTTTGGTGGGGGAACTGGTTCTGGGTTCACCTCCCTGCT
CATGGAACGCCTGTCAGTTGATTATGGCAAGAAATCCAAGCTGGAGTTCTCCATTTACCCGGCACCCCAGGTTTC
CACAGCTGTAGTTGAGCCCTACAACTCCATCCTCACCACCCACACCACCCTGGAGCACTCTGATTGTGCCTTCAT
GGTAGACAATGAGGCCATCTATGACATCTGTCGTAGAAACCTCGATATCGAGCGCCCAACCTACACTAACCTTAA
CCGCCTTATTAGCCAGATTGTGTCCTCCATCACTGCTTCCCTGAGATTTGATGGAGCCCTGAATGTTGACCTGAC
AGAATTCCAGACCAACCTGGTCCCCTACCCCCGCATCCACTTCCCTCTGGCCACATATGCCCCTGTCATCTCTGC
TGAGAAAGCCTACCATGAACAGCTTTCTGTAGCAGACATCACCAATGCTTGCTTTGAGCCAGCCAACCAGATGGT
GAAATGTGACCCTGGCCATGGTAAATACATGGCTTGCTGCCTGTTGTACCGTGGTGACGTGGTTCCCAAAGATGT
CAATGCTGCCATTGCCACCATCAAAACCAAGCGCACGATCCAGTTTGTGGATTGGTGCCCCACTGGCTTCAAGGT
TGGCATCAACTACCAGCCTCCCACTGTGGTGCCTGGTGGAGACCTGGCCAAGGTACAGAGAGCTGTGTGCATGCT
GAGCAACACCACAGCCATTGCTGAGGCCTGGGCTCGCCTGGACCACAAGTTTGACCTGATGTATGCCAAGCGTGC
CTTTGTTCACTGGTACGTGGGTGAGGGGATGGAGGAAGGCGAGTTTTCAGAGGCCCGTGAAGATATGGCTGCCCT
TGAGAAGGATTATGAGGAGGTTGGTGTGGATTCTGTTGAAGGAGAGGGTGAGGAAGAAGGAGAGGAATAC**TAA**TT
ATCCATTCCTTTTGGCCCTGCAGCATGTCATGCTCCCAGAATTTCAGCTTCAGCTTAACTGACAGATGTTAAAGC
TTTCTGGTTAGATTGTTTTCACTTGGTGATCATGTCTTTTCCATGTGTACCTGTAATATTTTTCCATCATATCTC
AAAGTAAAGTCATTAACATCA

FIGURE 837

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDLEPTVI
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIRKLADQCTRLQGFLVFHSFGGGTGSGFT
SLLMERLSVDYGKKSKLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT
NLNRLISQIVSSITASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISAEKAYHEQLSVADITNACFEPAN
QMVKCDPGHGKYMACCLLYRGDVVPKDVNAAIATIKTKRTIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV
CMLSNTTAIAEAWARLDHKFDLMYAKRAFVHWYVGEGMEEGEFSEAREDMAALEKDYEEVGVDSVEGEGEEEGEE
Y

FIGURE 838

GGGCTTCCTGGGGAGGGTGTGGCAGGGTGGTGGGCATCCCCTCCCTCACCAAAGCATGGGCTCTTTGTTTCCTCT
TTGCCAGGCCTGGGTCCTTCCCAGTGACCCCTCAGCCTTCACTTCCTCCTCACTCCCGGGGAGCTGTGACAGGTG
TTTGGGGGAGGGGAGGGGGGTATGATAAGCTGGGACAGCTGCACCCACCGGTGCTCTGGTGAGATGGGGGGCCCG
G**ATG**TTGGGGAGACACATCTGCTGGGTTCCCAGCCCAAGGTCCCCAACCCTGGCTGTCTGGCCTTGTCTGTCACC
CCCCGTGCCCACTGGCAGGGACAGGAAGCTCCCCCCCCACCCCGCTTTGGGCAGTTTGCCTTGGCACGGGCCTGA
TCTGTTTTCCTCCCCAGAGCAGCTGCTGTTCTGTCTGCTGGGCAGAGGGCTGGGTTCCTCCGAGGTAGGCAGGGG
CCTCAACCCAGAGCCCCTCTCACACCCTCTTTCAACTCAGGCTTATGTCTCTCCCTCCTCCCCCACCCCCACCCC
AGGAAGAGGAGATCCCAGAACTGGAGAT**TGA**CGTGGATGAGCTCCTGGACATGGAGAGTGACGATGCCCGGGCTG
CCAGGGTCAAGGAGCTGCTGGTTGACTGTTACAAACCCACAGAGGCCTTCATTTCTGGCCTGCTGGACAAGATCC
GGGGCATGCAGAAGCTGAGCACACCCCAGAAGAAGTGAGGGTCCCCGACCCAGGAGAACGGTGGCTCCCACAGGA
CAATCGCTGCCCCCCAACCTCGTAGCAACAGCAATACCGGGGGACCCTGCGGCCAGGCCTGGTGCCATGAGCAGG
GCTCCTCGTGCCCCTGGCCCAGGGGTCTCTTCCCTGCCCCCTCAGTTTTCCACTTTTGGGGTTTTTTATTGTTA
TTAAACTGATGGGACTTTAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 839

MLGRHICWVPSPRSPTLAVWPCLSPPVPTGRDRKLPPHPALGSLPWHGPDLFSSPEQLLFCLLGRGLGSSEVGRG
LNPEPLSHPLSTQAYVSPSSPTPTPGRGDPRTGD

FIGURE 840A

AAGTCAGCGCTGGAGTCGGCTAGGCGGCTGGAAACGGCGGCTGCCGCCGGTGACTCAGGGAGGCGGGAGGCGGGG
GAGGAGCTCTTCCTGCAGGCGTGGAAACC**ATG**GTGCTCACGCTCGGAGAAAGTTGGCCGGTATTGGTGGGGAGGA
GGTTTCTCAGTCTGTCCGCAGCCGACGGCAGCGATGGCAGCCACGACAGCTGGGACGTGGAGCGCGTCGCCGAGT
GGCCCTGGCTCTCCGGGACCATTCGAGCTGTTTCCCACACCGACGTTACCAAGAAGGATCTGAAGGTGTGTGTGG
AATTTGATGGGGAATCTTGGAGGAAAAGAAGATGGATAGAAGTCTACAGCCTTCTAAGGAGAGCATTTTTAGTAG
AACATAATTTGGTTTTAGCTGAACGAAAGTCACCTGAAATTTCTGAACGAATTGTACAGTGGCCTGCAATAACGT
ACAAACCTCTGTTGGACAAAGCTGGTTTGGGATCCATAACTTCTGTTCGCTTTCTGGGAGATCAACAAAGAGTAT
TTCTTTCTAAAGACCTTTTGAAGCCTATACAGGATGTAAACAGTCTTCGACTTTCTCTTACGGATAATCAGATTG
TCAGTAAAGAATTTCAAGCTTTGATTGTGAAGCATTTAGATGAAAGCCATCTTTTAAAAGGTGACAAAAACTTAG
TTGGTTCAGAAGTAAAAATTTATAGCTTGGACCCATCTACTCAGTGGTTTTCAGCAACCGTTATAAATGGAAACC
CAGCATCAAAAACTCTTCAAGTCAACTGTGAGGAGATTCCAGCACTGAAAATTGTTGATCCGTCACTGATTCATG
TTGAAGTTGTACACGATAACCTTGTGACATGTGGTAATTCTGCAAGAATTGGAGCTGTAAAACGCAAGTCTTCTG
AGAATAATGGAACCCTGGTTTCCAAACAAGCAAAATCTTGCTCTGAGGCCTCTCCCAGTATGTGTCCTGTGCAGT
CTGTACCTACAACAGTTTTTAAGGAGATACTGCTTGGCTGTACTGCGGCAACTCCACCTAGTAAGGACCCAAGAC
AGCAAAGTACTCCCCAGGCTGCCAACTCTCCACCTAACCTTGGAGCAAAAATTCCTCAAGGATGTCATAAACAAA
GTTACCAGAGGAAATTTCTTCCTGTCTAAATACAAAGTCTGAAGCTCTGAGAACAAAACCAGATGTCTGCAAAG
CAGGGTTGCTCTCAAAGTCCTCTCAGATTGGAACTGGAGACTTGAAAATTCTGACTGAGCCAAAAGGCAGCTGTA
CTCAGCCTAAGACAAACACTGATCAGGAAAACAGATTGGAGTCTGTTCCACAAGCATTGACTGGCCTTCCTAAGG
AGTGCTTACCTACAAAGGCTTCTTCTAAGGCAGAATTGGAAATTGCCAATCCTCCTGAACTGCAGAAGCACCTAG
AACATGCACCTTCCCCATCGGATGTTTCAAATGCACCAGAAGTGAAAGCAGGTGTCAATAGTGATAGCCCTAATA
ACTGTTCAGGAAAAAAGGTAGAACCTTCAGCTTTAGCTTGCCGATCACAGAATTTAAAGGAATCTTCAGTAAAAG
TAGATAATGAAAGCTGTTGTTCAAGAAGCAACAATAAAATCCAGAATGCCCCATCCAGGAAGTCGGTTTTGACAG
ACCCAGCTAAACTCAAAAAGCTGCAACAGAGTGGCGAGGCCTTCGTACAGGATGATTCTTGTGTGAACATCGTGG
CACAGTTGCCTAAATGCCGAGAGTGTCGCTTGGACAGTCTCCGCAAGGATAAGGAGCAACAGAAGGACTCACCTG
TGTTTTGCCGCTTCTTTCACTTCAGGAGGTTACAATTCAACAAACATGGTGTGTTGCGGGTAGAAGGCTTCTTAA
CACCAAACAAGTATGACAATGAAGCAATTGGCTTGTGGTTACCTTTAACCAAAAACGTTGTGGGGATTGATTTGG
ACACAGCAAAGTACATCTTGGCCAACATTGGAGACCACTTCTGTCAAATGGTGATTTCTGAAAAGGAAGCTATGT
CAACTATTGAGCCACACAGACAGGTTGCTTGGAAGCGAGCTGTCAAAGGTGTTCGAGAAATGTGTGATGTGTGCG
ACACCACCATCTTCAACCTGCACTGGGTGTGTCCTCGGTGTGGGTTTGGAGTATGTGTGGACTGCTACCGGATGA
AGAGAAAGAATTGCCAACAGGGTGCTGCTTACAAGACTTTCTCTTGGCTAAAATGTGTGAAGAGTCAGATACATG
AACCAGAGAACTTAATGCCCACACAGATCATTCCTGGAAAAGCACTCTATGATGTTGGAGACATTGTTCATTCTG
TAAGAGCGAAATGGGGAATAAAGGCAAACTGCCCTTGTTCAAACAGGCAATTCAAACTCTTTTCAAAGCCAGCCT
CAAAGGAAGACCTAAAACAGACTTCTTTAGCTGGAGAAAACCGACTCTTGGTGCAGTGCTCCAGCAGAATCCCT
CAGTGTTGGAGCCAGCAGCTGTGGGTGGGGAAGCAGCCTCCAAGCCAGCCGGCAGCATGAAGCCTGCCTGTCCAG
CCAGCACATCTCCTCTAAACTGGCTGGCCGACCTAACCAGCGGGAATGTCAACAAGGAAAACAAGGAAAAACAAC
CAACAATGCCAATTTTAAAGAATGAAATCAAATGCCTTCCACCCCTCCCACCTTTAAGCAAATCCAGCACAGTCC
TCCATACGTTTAACAGCACAATTTTGACACCCGTAAGCAACAACAATTCTGGTTTCCTCCGGAATCTCTTGAATT
CTTCTACAGGAAAGACAGAAAATGGACTCAAGAATACACCAAAAATCCTTGATGACATCTTTGCCTCTTTGGTGC
AAAATAAGACGACTTCTGATTTATCTAAGAGGCCTCAAGGACTAACCATCAAGCCCAGCATTCTGGGCTTTGACA
CTCCTCACTATTGGCTTTGTGATAATCGCTTGCTGTGCTTGCAAGACCCCAACAATAAGAGCAACTGGAATGTGT
TTAGGGAGTGCTGGAAACAAGGGCAGCCAGTGATGGTGTCTGGAGTGCATCATAAATTGAACTCTGAACTTTGGA
AACCTGAATCCTTCAGGAAAGAGTTTGGTGAGCAGGAAGTAGACCTAGTTAATTGTAGGACCAATGAAATCATCA
CAGGAGCCACAGTAGGAGACTTCTGGGATGGATTTGAAGATGTTCCAAATCGTTTGAAAAATGAAAAGAACCAA
TGGTGTTGAAACTTAAGGACTGGCCACCAGGAGAAGATTTTAGAGATATGATGCCTTCCAGGTTTGATGATCTGA
TGGCCAACATTCCACTGCCCGAGTACACAAGGCGAGATGGCAAACTGAATTTGGCCTCTAGGCTGCCAAACTACT
TTGTTCGGCCAGATCTGGGCCCCAAGATGTATAATGCTTATGGATTAATCACTCCTGAAGATCGGAAATATGGAA
CAACAAATCTTCACTTAGATGTATCTGATGCAGCTAATGTCATGGTCTATGTGGGAATTCCCAAAGGACAGTGTG
AGCAAGAAGAAGAAGTCCTTAAGACCATCCAAGATGGAGATTCTGACGAACTCACAATAAAGCGATTTATTGAAG

FIGURE 840B

GAAAAGAGAAGCCAGGAGCACTGTGGCACATATATGCTGCAAAGGACACGGAGAAGATAAGGGAATTTCTTAAAA
AGGTATCAGAAGAGCAAGGTCAAGAAAACCCAGCAGACCACGATCCTATTCATGATCAAAGCTGGTATTTAGACC
GATCATTAAGAAAACGTCTTCATCAAGAGTATGGAGTTCAAGGCTGGGCTATTGTACAGTTTCTTGGGGATGTGG
TGTTTATCCCGGCAGGAGCTCCACATCAGGTTCATAACTTATATAGCTGCATCAAAGTGGCTGAAGATTTTGTTT
CTCCAGAGCATGTTAAACACTGCTTCTGGCTTACTCAGGAATTCCGATATCTGTCACAGACTCATACCAATCACG
AAGATAAATTACAGGTGAAGAATGTTATCTACCATGCAGTGAAAGATGCAGTTGCTATGCTGAAAGCCAGTGAAT
CCAGTTTTGGCAAACCT**TAA**TCTCCCTGCACATTGGAAATGAATTACAGGCAGCTGTTCAAACTCTTCAGGCAGG
ATTCCTGTGGACTTTGAGATTCATGTTACCTCATCTTCTTTTTTAAACTGTACCCAACTTGTGAGGGTACTCTGT
CTAATGTATATTTCTAGTGTTTACAGACAGTAAATGTGTATATGTAGTAACTATTTACAGAACATGCATCCTTAA
ACTGTGACTTCTCACCTAGTGCAGAACTTTTACCAGGCTGTAAAAGCAAAACCTCGTATCAGCTCTGGAACAATA
CCTGCAGTTATTCTTCAGCTGTTTGGACAACTTAGATTGGGTTTATAACTATTAGGAATCACTGCACAGTTTATT
TGGGTTGTGTTTTGTGTCTGAGTCCCCTCCCTCATCCCTTAGGGTCCAGAAGAGCAATGGAGGAAGTGACAGCTA
ATGTTGCAGTTCTTATTGTATGGCATAGGACTGGCATTATATAGCAGAAATCAACTACTGTACAATTTCTTGGGG
TTAACCATCTTTAGTTAAATGGAATTTTAATTTAAATGACGCTTTGCTAATTTTAAGTGTTAAGCATTTTGCATT
AAAATATTCATATAAT

FIGURE 841

MVLTLGESWPVLVGRRFLSLSAADGSDGSHDSWDVERVAEWPWLSGTIRAVSHTDVTKKDLKVCVEFDGESWRKR
RWIEVYSLLRRAFLVEHNLVLAERKSPEISERIVQWPAITYKPLLDKAGLGSITSVRFLGDQQRVFLSKDLLKPI
QDVNSLRLSLTDNQIVSKEFQALIVKHLDESHLLKGDKNLVGSEVKIYSLDPSTQWFSATVINGNPASKTLQVNC
EEIPALKIVDPSLIHVEVVHDNLVTCGNSARIGAVKRKSSENNGTLVSKQAKSCSEASPSMCPVQSVPTTVFKEI
LLGCTAATPPSKDPRQQSTPQAANSPPNLGAKIPQGCHKQSLPEEISSCLNTKSEALRTKPDVCKAGLLSKSSQI
GTGDLKILTEPKGSCTQPKTNTDQENRLESVPQALTGLPKECLPTKASSKAELEIANPPELQKHLEHAPSPSDVS
NAPEVKAGVNSDSPNNCSGKKVEPSALACRSQNLKESSVKVDNESCCSRSNNKIQNAPSRKSVLTDPAKLKKLQQ
SGEAFVQDDSCVNIVAQLPKCRECRLDSLRKDKEQQKDSPVFCRFFHFRRLQFNKHGVLRVEGFLTPNKYDNEAI
GLWLPLTKNVVGIDLDTAKYILANIGDHFCQMVISEKEAMSTIEPHRQVAWKRAVKGVREMCDVCDTTIFNLHWV
CPRCGFGVCVDCYRMKRKNCQQGAAYKTFSWLKCVKSQIHEPENLMPTQIIPGKALYDVGDIVHSVRAKWGIKAN
CPCSNRQFKLFSKPASKEDLKQTSLAGEKPTLGAVLQQNPSVLEPAAVGGEAASKPAGSMKPACPASTSPLNWLA
DLTSGNVNKENKEKQPTMPILKNEIKCLPPLPPLSKSSTVLHTFNSTILTPVSNNNSGFLRNLLNSSTGKTENGL
KNTPKILDDIFASLVQNKTTSDLSKRPQGLTIKPSILGFDTPHYWLCDNRLLCLQDPNNKSNWNVFRECWKQGQP
VMVSGVHHKLNSELWKPESFRKEFGEQEVDLVNCRTNEIITGATVGDFWDGFEDVPNRLKNEKEPMVLKLKDWPP
GEDFRDMMPSRFDDLMANIPLPEYTRRDGKLNLASRLPNYFVRPDLGPKMYNAYGLITPEDRKYGTTNLHLDVSD
AANVMVYVGIPKGQCEQEEEVLKTIQDGDSDELTIKRFIEGKEKPGALWHIYAAKDTEKIREFLKKVSEEQGQEN
PADHDPIHDQSWYLDRSLRKRLHQEYGVQGWAIVQFLGDVVFIPAGAPHQVHNLYSCIKVAEDFVSPEHVKHCFW
LTQEFRYLSQTHTNHEDKLQVKNVIYHAVKDAVAMLKASESSFGKP

FIGURE 842

CTAACCCAGTATGTTCTTCTTTTTTATGTAAGGNACAGCTTTCTCCACAGAGTCCTTTCTGCTGGTGAGGACAGC
ATTTCTGAGCAGGGCTTTGTTCTCTATGTGCATTAGGACTTTTATCATGCCCTTGTTCTGTGTGTAGTTACTTGA
CAGCATCAAATGCCGCCTCTTCCTAATGTCCTTCAAGTTTTCATGAACTAGCAACCCCACCTTCCACCATGGTTC
TGGGCGCCTGATTTTGCTGTGACTC

FIGURE 843

GAAGGGGGCTGGGCCGGAGCCCCCAGGCTCAGAGGAGGAGGAGGAGGAGCAGGAGGAGAGCCTGGCGGTGGCGGA
GCAGGGAAAGGGGCGCAGGGAGTCTGAAAGCTCCAGGAGCAGCAGAAGGCCCAGTGGCCGGTCTCCAACCAGTAC
TGAGAAGCGCATGAGCTTCGAGTCCATTTCTTCCCTGCCAGAGGTTGAGCCGGACCCTGAGGCTGGGAGTGAGCA
AGAGGTATTTTCTGCTGTGGAAGGGCCCAGTGCCGAGGAGACGCCTTCAGACACAGAATCTCCAGAAGTCCTGGA
GACACAGCTTGATGCCCACCAGGGCCTTCTGGGGATGGACCCCCCAGGTGACATGGTGGACTTCGTGGCAGCTGA
GAGCACTGAGGACCTTAAGGCCCTGAGCAGCGAGGAGGAAGAAGAAATGGGAGGTGCCGCCCAGGAGCCTGAGAG
CCTTCTGCCACCCTCTGTGCTGGACCAGGCCAGCGTCATTGCGGAGCGATTTGTCAGCAGCTTCTCTCGGCGGAG
CAGCGTGGCACAGGAGGACAGCAAGTCCAGTGGCTTTGGGAGCCCGCGGCTGGTCAGCCGGAGCAGCAGCGTGCT
CAGCCTGGAGGGCAGCGAGAAGGGCCTGGCCCGGCATGGCAGTGCCACAGACTCCCTCAGCTGTCAGCTCTCCCC
AGAAGTGGACATCAGTGTGGGGGTGGCCACAGAGGACAGCCCTTCTGTCAATGGGATGGAGCCCCCAAGCCCAGG
CTGCCCAGTGGAGCCTGACCGGTCTTCCTGCAAGAAGAAGGAATCAGCACTCTCCACCCGAGACCGGCTGTTGCT
AGACAAGATTAAGAGCTGGTGGCCCCACTGCACCCCCGCATCGTGCAGCTCTCCCACGTAATGGACAGCCACGTG
AGCGAGCGCGTCAAGAACAAGGTCTACCAGCTGGCCCGCCAGTACAGCCTCCGGATCAAGAGCAACAAGCCAGTG
ATGGCCAGGCCACCACTGCAGTGGGAAAAGGTGGCCCCTGAGAGGGATGGGAAGAGCCCCACTGTGCCCTGTCTA
CAGGAAGAGGCTGGAGAGCCATTAGGTGGCAAAGGTAAGAGGAAGCCGGTGCTGTCTCTATTTGACTATGAGCAG
CTGATGGCCCAGGAGCACAGCCCTCCCAAGCCCTCCTCGGCTGGGGAGATGTCACCACAGCGTTTCTTCTTCAAC
CCGTCTGCTGTCAGCCAGAGGACCACCTCGCCTGGGGGCCGGCCCTCCGCCCGGAGCCCCCTCAGCCCCACAGAG
ACCTTCAGCTGGCCCGACGTCCGTGAGCTCTGCTCCAAGTATGCCTCCCGCGATGAGGCACGCCGAGCAGGGGGC
GGCCGGCCCCGCGGCCCACCCGTCAACAGGAGCCACTCGGTGCCGGAGAACATGGTAGAGCCACCTCTGTCGGGC
AGGGTGGGCCGCTGCCGCAGCCTGAGCACCAAGAGGGGCCGGGGGAGGCGGAGAGGCTGCCCAATCCCCTGGGCCT
CTGCCCCAGAGCAAGCCGGATGGAGGCGAGACCCTGTATGTCACTGCAGACCTCACCCTGGAGGACAACCGGCGG
GTGATTGTCATGGAGAAGGGACCCCTTCCCAGCCCCACTGCAGGGCTGGAGGAGAGCAGTGGCCAGGGACCAAGC
TCACCGGTGGCCCTGCTGGGGCAGGTTCAGGACTTCCAGCAGTCTGCAGAGTGCCAGCCGAAGGAAGAGGGTTCC
AGGGACCCGGCAGACCCGAGCCAGCAGGGCAGAGTGAGAAACCTTAGAGAGAAGTTCCAGGCCTTGAACTCTGTC
GGTTGATGCTGACTCCTGGGGGAGGGAGGAGTCATGTTGGAGGTTGGGGAAGAACCTGGGCATCCTTCCCCTCAA
GCCTGGGCTCATGGAGCCCCTGCCCAGGGCCCTCAGGTGGGCGGAAAGTCCATCCCCTCCGCCCTTCAGGAAGGA
TGCTCCCGTGTGCAGGGGTCTCCTGCCTGTGCCATCCACTGGGGCTCGAGACAATTTCCCACTCACCTGTGAGGC
CGGTGTGGCTGCTTCCCTTGTAAATAGTTGTTCTCTGGTAAGAAGCCAAATATTTAAGCTCACTTCTTCCCAGAG
AGAGGAAGCTCTGCTCAGGCCTCCAGCGTTGGCTGGCCATGGCCACAGCCAGATGGAGGAGCCCATCCCCAGGAG
ACTCAGGCAGTGGCCTGGAGAGGCTTTGTTCTGTAACGGTGCCTTTTCTTAGGGTCCAGGCAGGAATGAAGCCAA
TAATTTATTGCTTTCCATTCTGTGGTATGATGTGCGTGTGCGTGAGTGTGTGGCCCCTGTTTATTCCCTCCTGT
CAAGAATGAAGTGGATTCAGTTCAGGTACTTTTGAGGGTTGTTGTGCTGACCCTGTGGTTGTCGCTGATGTACAC
ACATTTCATTATTTGCCAATGGTGCAATAACCACTGCTGACCAACAAAAAAAAAAAAAAAAAAAA

FIGURE 844

AATCCAACTCACCTCC**ATG**TTCAAGGATGTCCCTCTGACTGCAGAAGAGGTGGAATTTGTGGTGGAAAAAGCATT
GAGCATGTTCTCCAAGATGAATCTTCAAGAAATACCACCTTTGGTCTATCAGCTTCTGGTTCTCTCCTCCAAGGG
AAGCAGAAAGAGTGTTTTGGAAGGAATCATAGCCTTCTTCAGTGCACTAGATAAGCAGCACAATGAGGAACAGAG
TGGTGACGAGCTATTGGATGTTGTCACTGTGCCATCAGGTGAACTTCGTCATGTGGAAGGCACCATTATTCTACA
CATTGTGTTTGCCATCAAATTGGACTATGAACTAGGCAGAGAACTCGTGAAACACTTAAAGGTAGGACAGCAAGG
AGATTCCAATAATAACTTAAGTCCCTTCAGCATTGCTCTTCTTCTGTCTGTAACAAGAATACAAAGATTTCAGGA
CCAGGTGCTTGATCTTTTAAAGACTTCGGTTGTAAAGAGCTTTAAGGATCTTCAACTCCTCCAAGGCTCAAAATT
TCTTCAGAATCTAGTTCCTCATAGATCTTATGTTTCAACCATGATCTTGGAAGTAGTGAAGAATAGCGTTCATAG
CTGGGACCATGTTACTCAGGGCCTCGTAGAACTTGGTTTCATTTTGATGGATTCATATGGGCCAAAGAAGGTTCT
TGATGGAAAAACTATTGAAACCAGCCCAAGTCTTTCTAGAATGCCAAACCAGCATGCATGTAAGCTCGGAGCTAA
TATCCTGTTGGAAACTTTTAAGATCCATGAGATGATCAGACAAGAAATTTTGGAGCAGGTCCTCAACAGGGTTGT
TACCAGAGCATCTTCTCCCATCAGTCATTTCTTAGACCTGCTTTCAAATATCGTCATGTATGCACCCTTAGTTCT
TCAAAGTTGTTCTTCTAAAGTCACAGAAGCTTTTGACTATTTGTCCTTTCTGCCCCTTCAGACTGTACAAAGGCT
GCTTAAGGCAGTGCAGCCCCTTCTCAAAGTCAGCATGTCAATGAGAGACTGCTTGATACTTGTCCTTCGGAAAGC
TATGTTTGCCAACCAGCTTGATGCCCGAAAATCTGCAGTTGCTGGGTTTTTGCTGCTCCTGAAGAACTTTAAAGT
TTTAGGCAGCCTGTCATCCTCTCAGTGCAGTCAGTCTCTCAGTGTCAGTCAGGTTCATGTGGATGTTCACAGCCA
TTACAATTCTGTCGCCAATGAAACTTTTTGCCTTGAGATCATGGATAGTTTGAGGAGATGCTTAAGCCAGCAAGC
TGATGTTCGACTCACGCTTTATGAGGGGTTTTATGATGTTCTTCGAAGGAACTCTCAGCTGGCTAATTCAGTCAT
GCAAACTCTGCTCTCACAGTTAAAACAGTTCTATGAGCCAAAACCTGATCTGCTGCCTCCTCTGAAATTAGAAGC
TTGTATTCTGACCCAAGGAGATAAGATCTCTCTACAAGAACCACTGGATTATCTGCTGTGTTGTATTCAGCATTG
TTTGGCCTGGTATAAGAATACAGTCATACCCTTACAGCAGGGAGAGGAGGAAGAGGAGGAGGAAGAGGCATTCTA
CGAAGACCTAGATGATATATTGGAGTCCATTACTAATAGAATGATTAAGAGTGAGCTGGAAGACTTTGAACTGGA
TAAATCAGCAGATTTTTCTCAGAGCACCAGTATTGGCATAAAAAATAATATCTCTGCTTTTCTTGTGATGGGAGT
TTGTGAGGTTTTAATAGAATACAATTTCTCCATAAGTAGTTTCAGTAAGAATAGGTTTGAGGACATTCTGAGCTT
ATTTATGTGTTACAAAAAACTCTCTGACATTCTTAATGAAAAAGCGGGTAAAGCCAAAACTAAAATGGCCAACAA
GACAAGTGATAGTCTTTTGTCCATGAAATTTGTGTCCAGTCTTCTCACTGCTCTTTTCAGAGTCTTGCTATGGAG
ATACACTTCAATTCCTACTTCAGTGGAAGAGTCGGGAAAGAAAGAGAAAGGAAAGAGCATCTCACTGCTGTGCTT
GGAGGGTTTACAGAAAATATTCAGTGCTGTGCAACAGTTCTATCAGCCCAAGATTCAGCAGTTTCTCAGAGCTCT
GGATGTCACAGATAAGGAAGGAGAAGAGAGAGAAGATGCAGATGTCAGTGTCACTCAGAGAACAGCATTCCAGAT
CCGGCAATTTCAGAGGTCCTTGTTGAATTTACTTAGCAGTCAAGAGGAAGATTTTAATAGCAAAGAAGCCCTCCT
GCTAGTCACGGTTCTTACCAGTTTGTCCAAGTTACTGGAGCCCTCCTCTCCTCAGTTTGTGCAGATGTTATCCTG
GACATCAAAGATTTGCAAGGAAAACAGCCGGGAGGATGCCTTGTTTTGCAAGAGCTTGATGAACTTGCTCTTCAG
CCTGCATGTTTCGTATAAGAGTCCTGTCATTCTGCTGCGTGACTTGTCCCAGGATATCCACGGGCATCTGGGAGA
TATAGACCAGGATGTAGAGGTGGAGAAAACAAACCACTTTGCAATAGTGAATTTGAGAACGGCTGCCCCCACTGT
CTGTTTACTTGTTCTGAGTCAGGCCGAGAAGGTTCTAGAAGAAGTGGACTGGCTAATCACCAAGCTTAAGGGACA
AGTGAGCCAAGAAACCTTATCAGAGGCCTCTTCTCAGGCAACCCTACCAAATCAGCCTGTTGAGAAAGCTATCAT
CATGCAACTGGGAACTCTGCTTACATTTTTCCACGAGCTGGTGCAGACAGCTCTGCCATCAGGCAGCTGTGTGGA
CACCTTGTTAAAGGACTTGTGCAAAATGTACACCACACTTACAGCCCTTGTCAGATATTATCTCCAGGTGTGTCA
GAGCTCCGGAGGAATTCCAAAAAATATGGAAAAGCTGGTGAAGCTGTCTGGTTCTCATCTGACCCCCCTGTGTTA
TTCTTTCATTTCTTACGTACAGAATAAGAGTAAGAGCCTGAACTATACGGGAGAGAAAAAGGAGAAACCTGCTGC
CGTTGCCACAGCCATGGCCAGAGTTCTTCGGGAAACCAAGCCAATCCCTAACCTCATCTTTGCCATAGAACAGTA
TGAAAAATTTCTCATCCACCTTTCTAAGAAGTCCAAGGTGAACCTGATGCAGCACATGAAGCTCAGCACCTCACG
AGACTTCAAGATCAAAGGAAACATCCTAGACATGGTTCTTCGAGAGGATGGCGAAGATGAAAATGAAGAGGGCAC
TGCATCAGAGCATGGGGGACAGAACAAAGAACCAGCCAAGAAG

FIGURE 845

MFKDVPLTAEEVEFVVEKALSMFSKMNLQEIPPLVYQLLVLSSKGSRKSVLEGIIAFFSALDKQHNEEQSGDELL
DVVTVPSGELRHVEGTIILHIVFAIKLDYELGRELVKHLKVGQQGDSNNNLSPFSIALLLSVTRIQRFQDQVLDL
LKTSVVKSFKDLQLLQGSKFLQNLVPHRSYVSTMILEVVKNSVHSWDHVTQGLVELGFILMDSYGPKKVLDGKTI
ETSPSLSRMPNQHACKLGANILLETFKIHEMIRQEILEQVLNRVVTRASSPISHFLDLLSNIVMYAPLVLQSCSS
KVTEAFDYLSFLPLQTVQRLLKAVQPLLKVSMSMRDCLILVLRKAMFANQLDARKSAVAGFLLLLKNFKVLGSLS
SSQCSQSLSVSQVHVDVHSHYNSVANETFCLEIMDSLRRCLSQQADVRLTLYEGFYDVLRRNSQLANSVMQTLLS
QLKQFYEPKPDLLPPLKLEACILTQGDKISLQEPLDYLLCCIQHCLAWYKNTVIPLQQGEEEEEEEEAFYEDLDD
ILESITNRMIKSELEDFELDKSADFSQSTSIGIKNNISAFLVMGVCEVLIEYNFSISSFSKNRFEDILSLFMCYK
KLSDILNEKAGKAKTKMANKTSDSLLSMKFVSSLLTALFRVLLWRYTSIPTSVEESGKKEKGKSISLLCLEGLQK
IFSAVQQFYQPKIQQFLRALDVTDKEGEEREDADVSVTQRTAFQIRQFQRSLLNLLSSQEEDFNSKEALLLVTVL
TSLSKLLEPSSPQFVQMLSWTSKICKENSREDALFCKSLMNLLFSLHVSYKSPVILLRDLSQDIHGHLGDIDQDV
EVEKTNHFAIVNLRTAAPTVCLLVLSQAEKVLEEVDWLITKLKGQVSQETLSEASSQATLPNQPVEKAIIMQLGT
LLTFFHELVQTALPSGSCVDTLLKDLCKMYTTLTALVRYYLQVCQSSGGIPKNMEKLVKLSGSHLTPLCYSFISY
VQNKSKSLNYTGEKKEKPAAVATAMARVLRETKPIPNLIFAIEQYEKFLIHLSKKSKVNLMQHMKLSTSRDFKIK
GNILDMVLREDGEDENEEGTASEHGGQNKEPAKK

FIGURE 846A

GGACGAGTCGAGCCTCCTGCGGCGCCGCGGGCTCCAGAAGGAGCTGAGCCTGCCACGCCGAGGACGTGGCTGCCG
CAGCGGGAACCGCAAGAGCTTGGTGGTAGGAACGCCCTCCCCGACCCTCTCCCGGCCCCTGTCGCCATTGTCGGT
CCCAACGGCAGGCAGCAGCCCCTTGGATAGTCCTCGGAATTTCTCGGCTGCCTCTGCCCTAAATTTCCCCTTTGC
CCGGAGGGCAGACGGCAGAAGATGGTCCCTCGCGTCTCTCCCATCTTCCGGCTATGGAACCAACACACCCAGCTC
CACCCTCTCGTCAAGCTCATCCTCCCGGGAACGTCTCCACCAGCTTCCCTTCCAGCCGACGCCGGACGAGCTGCA
CTTCCTGTCCAAGCACTTCCGCAGCTCAGAGAATGTGCTTGATGAGGAAGGCGGCCGGTCACCCCGCCTCCGACC
CCGCTCTCGCAGTCTCAGCCCGGGCCGTGCAACGGGGACCTTCGACAATGAGATTGTCATGATGAATCACGTGTA
CCGGGAGAGGTTCCCCAAGGCCACAGCACAGATGGAGGGCCGTCTGCAGGAGTTCCTGACGGCCTACGCGCCCGG
CGCCCGGCTGGCGCTGGCTGATGGCGTCTTGGGCTTCATCCACCACCAGATCGTCGAGCTGGCCCGAGACTGCTT
GGCCAAGTCTGGCGAGAACCTCGTCACCTCCCGCTACTTCCTAGAGATGCAGGAGAAGCTGGAGCGGCTTCTGCA
GGATGCCCATGAGCGTTCGGACAGTGAGGAGGTCAGCTTCATCGTCCAGCTTGTCCGGAAACTGCTGATCATCAT
CTCACGGCCAGCTCGGCTGCTGGAGTGTCTGGAGTTTGACCCTGAGGAATTTTACCACCTGCTGGAGGCGGCTGA
GGGCCATGCGCGGGAGGGCCAAGGCATTAAGACTGACCTTCCACAGTACATCATTGGGCAGCTGGGCCTGGCCAA
GGACCCCCTGGAGGAGATGGTGCCACTGAGTCACCTCGAAGAAGAACAGCCCCCAGCACCTGAGTCCCCAGAGAG
CCGCGCCCTGGTCGGCCAGTCACGGAGGAAGCCATGCGAAAGCGACTTTGAGACCATCAAACTCATTAGCAACGG
AGCCTATGGGGCCGTCTACCTGGTGCGGCACCGTGACACACGGCAGCGCTTTGCCATCAAGAAGATCAACAAACA
GAACTTGATCCTGCGTAACCAGATCCAGCAGGTCTTTGTGGAGCGTGACATTCTCACCTTTGCCGAGAACCCCTT
TGTGGTCAGCATGTTCTGCTCCTTTGAGACCCGGCGCCACCTATGTATGGTCATGGAATACGTGGAAGGCGGCGA
CTGCGCCACGCTCCTGAAGAACATGGGCCCGCTGCCCGTGGACATGGCCCGCCTGTACTTCGCCGAGACGGTGTT
GGCGCTGGAGTACCTGCATAACTATGGCATCGTGCACCGTGACCTCAAACCAGACAATCTGCTCATCACCTCGCT
TGGCCACATCAAGCTCACGGACTTCGGCCTGTCCAAGATCGGCCTCATGAGCATGGCCACCAACCTCTATGAGGG
CCACATCGAGAAGGACGCCCGAGAGTTCATCGACAAGCAGGTGTGTGGGACGCCGGAGTACATAGCCCCCGAGGT
GATCTTCCGCCAGGGCTATGGGAAGCCAGTGGACTGGTGGGCCATGGGCGTCGTCCTCTATGAGTTTCTGGTGGG
CTGCGTGCCTTTCTTTGGAGATACCCCCGAGGAACTCTTCGGTCAGGTGGTCAGCGATGAGATCATGTGGCCAGA
GGGAGATGAGGCCCTTCCAGCAGACGCCCAGGACCTCATCACCAGGTTGCTCCGGCAGAGCCCGCTGGACCGTCT
GGGCACTGGTGGCACCCACGAAGTGAAGCAGCACCCCTTTTTCCTGGCCCTGGACTGGGCAGGGCTTCTCCGACA
CAAAGCCGAGTTCGTGCCCCAGCTCGAAGCCGAGGATGATACCAGCTACTTTGACACACGTTCGGAACGTTACCG
CCATCTGGGCTCCGAGGACGACGAGACCAATGATGAAGAATCGTCCACAGAGATCCCCCAGTTCTCCTCCTGCTC
CCACCGGTTCAGCAAGGTCTACAGCAGCTCTGAGTTCCTGGCCGTCCAGCCCACTCCTACCTTCGCTGAAAGGAG
CTTCAGTGAAGACCGGGAGGAGGGGTGGGAGCGCAGCGAAGTGGACTATGGCCGCCGGCTGAGTGCTGACATCCG
GCTGAGGTCCTGGACATCCTCTGGATCCTCCTGTCAGTCATCTTCGTCCCAGCCCGAGCGGGGTCCCAGCCCATC
TCTCCTGAATACCATCAGCCTGGACACAATGCCCAAGTTTGCCTTCTCATCAGAGGATGAGGGGGTAGGCCCAGG
CCCTGCAGGCCCCAAGAGGCCCGTCTTCATTCTAGGGGAGCCTGACCCCCCACCAGCGGCCACCCCAGTGATGCC
CAAGCCCTCGAGCCTTTCTGCCGACACAGCTGCTCTCAGCCACGCCCGCCTACGGAGCAATAGCATCGGCGCCCG
ACACTCCACACCAAGGCCTCTGGATGCCGGCCGGGGCCGCCGCCTTGGGGGCCCAAGAGACCCAGCCCCTGAGAA
GTCCAGAGCCTCCTCCAGCGGTGGCAGTGGTGGCGGCAGTGGGGGCCGCGTGCCCAAGTCAGCCTCTGTCTCTGC
CCTGTCCCTCATCATCACGGCAGATGATGGCAGCGGCGGCCCCCTCATGAGCCCCCTTTCCCCGCGCTCTCTGTC
CTCGAACCCGTCGTCCCGTGACTCTTCGCCGAGCCGAGACCCGTCCCCGTGTGTGGCAGCCTGCGGCCCCCCAT
CGTTATCCACAGCTCTGGCAAGAAGTACGGCTTCAGCCTGCGGGCGATCCGCGTCTACATGGGTGATAGCGACGT
CTACACTGTGCACCACGTCGTCTGGAGTGTGGAGGACGGAAGCCCCGCCCAGGAGGCGGGCCTGCGGGCTGGGGA
CCTCATCACCCACATCAACGGGGAGTCAGTGCTGGGGCTGGTGCACATGGACGTCGTGGAGCTGCTGCTGAAGAG
CGGCAACAAGATATCCCTGCGGACCACAGCCCTGGAGAACACCTCCATCAAGGTGGGCCCCGCCCGGAAGAATGT
GGCCAAGGGCCGCATGGCACGCAGGAGCAAGAGGAGCCGTCGGCGGGAGACCCAGGATCGGCGGAAGTCACTTTT
CAAGAAGATCTCCAAGCAGACCTCCGTGCTGCACACCAGCCGCAGCTTCTCCTCCGGACTCCACCACTCACTGTC
ATCCAGTGAGAGCCTCCCCGGCTCGCCCACCCACAGCCTCTCCCCCAGCCCCACCACTCCCTGCCGAAGCCCAGC
CCCTGATGTCCCAGCAGATACCACTGCATCCCCACCCAGCGCATCCCCGAGCTCCAGCAGCCCCGCCTCCCCAGC
TGCTGCTGGCCACACCCGCCCCAGCTCCCTGCACGGCCTGGCTGCCAAGCTTGGGCCACCCCGCCCCAAGACTGG
CCGCCGCAAGTCCACCAGCAGCATCCCGCCCTCCCCGCTGGCCTGCCCGCCCATCTCCGCGCCCCCACCCCGCTC

FIGURE 846B

GCCCTCGCCCCTGCCCGGGCACCCGCCCGCACCTGCCCGATCCCCGCGGCTGCGCCGGGGCCAGTCAGCTGACAA
GCTGGGCACAGGGGAGCGGCTGGATGGGGAGGCGGGGCGGCGCACTCGTGGGCCAGAGGCCGAGCTCGTGGTCAT
GCGGCGGCTGCACCTGTCCGAGCGCCGAGACTCCTTCAAGAAGCAGGAGGCCGTGCAGGAGGTTAGCTTCGATGA
GCCGCAGGAGGAGGCCACTGGGCTGCCCACCTCAGTGCCACAGATCGCCGTGGAGGGCGAGGAAGCCGTGCCAGT
AGCTCTCGGGCCCACCGGAAGAGAC**TGA**TCCCCTGCCAGGTCTCTCCCTGGCATCAAAGTTACGCGTTTTCTTGT
GCAATGTTTTTTCCGTAAAGTCATGCCTGGATGGGGACTGAGCCACCAGCCTGACACCCAGAAGGCGAGAAGCCA
TCTCGGTCCTTGCTGGAAGGTGGAGACATCGCTTGTGTTCTGGTGTCAATCAGGGGGCTGGATGGGGCAAGAATG
GGGGACAAGGGTGGCTTTGTAAATAGCAGCAAATCCCTGCAACTAATTTATTACTTTTTTTTTCTTTTTTTTTTT
TTTTTTTGAGACAGAGTCTCACTCTGTTGCCCCGGCTGGAGTGCAGCGGCGTGATCTCAGCTCACTGCAACCTCC
GCCTCCCAAGTTCAAGCGATTGTCCTGCCTCAGCTTCCCAAGTGGCTGGGATTACAGGCGCCCACCACTATGCCC
AGCTAATTTTTTGTATTTTTAGTACAGACGGGGTTTCACCATGTTGGTCAGGCTGGTCTCGAACTCCTGACCTCA
TGATTTGCCTGCCTTTGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACTGGGCCCAGCCTAATTTATTACT
TTTTATAAGCGATAGCCGTACTGAGCCGCCCCCTGAAGGCGGCTGCCAGGTCTTGCCCCAGGCACCTGGGACTCT
GTTTGCAGGCCCTGCCCTCTGGGCTGAGAAGGATGCACTTTGGACAAGTCATCTGTGTTTGTGTTTTCCAGTTTT
TCTGTACTTTTTAAGTGTTTTGTGTTACCTGGTCTCATTCCCCTCCCCACACCTACCCATTTGAGGGGATGGAGT
TGAAGTCACCTGGTCACCTGTACCGGCCCAGTTCGGCTACAACCTGGAGTGTCCGTAAACAATTCCTCTCACCCA
CAAAACAATGTAATCCCAGCGATGGACTGGATTCTGAAGGCCACTTCCCACCATCATAGCTGCCATGCCCAGGCA
GTGCCTGCTCTATATATAGAGTCTGCCTCCAATCCTGCTGGCTTCAGCCTGGAGAAGGGATATGGGAGCTGGAGC
TTTGATGGATGAATAGGTGTTCACCGGATCTGGGCAGAGGGGTCATCCGCTCCCCAGGTGGGCACTGATAAAGGA
AGGTACAGGCCTCACCTGGAACTGCCAAGGCAGCCTCCAGAAATGCTCGGCTGTCTCGGGGCACGCTCCAGTATG
CCAGTCCTGCGGGATTACGTCCAGCTACTTCCAGAAACACTCAGTGTCCCCTCCCCTCAGGCTCTGCCTTGGCCT
GGCCTTGTCCAGTCTACCCTGGACAAGATGCCGTGTGTTTGAGGCCCAGCAGAGTAAGCCCTTGGCCGTGATGTG
TCTGAAACACCTGTTAGGGGTTCCCTCCATATGTCAGAGCCTCTCTGGGATGAAGTTCAAGCCAGAAAACCCAGT
CGAGGCTCAAGTTTGAATTTCAGCTTCACTGTGTGGCTCTGGGAAAATGGCTTTCCCACTCTGTGCCTCAGTTTC
CTTGTGTTTACAAGACTAATCCCATTGACTGTTTATTAAGCACCTACTGTGTGCCAAGCGCTTTTACGTGGCTTC
TCCCTCAGCCAGCCTTGAGAAGGCTGGAGGTGGTGTCATCACCTCCATTTTACAGACAAAGCAGCTGAGACCCCA
GCGAGGGGCGGAGACCTGTCCCACGATCACCCAGCAGGAGTCGTGGCAGAACGGAGCATCAGCCAGACCTGTTG
TGGGCGTTGTCATCAAGGGAGCTTGAATGGAGGGTCTGGTGTCAGATACAGCCGACTCCAGCCCCAGCTCATCCC
CCATGATGCTGTGTGACCCACTGGGCACTCTGGTGAGGGAGCTTTCCAGACATCAACAGCCCACTCTGCTTCCCT
TTCTGAGTCCCCTGTCCAGCACTGCCTAGTGTTGGAGGGTAGACCAAGGCTGTGCATGATTCACCCCCTCCTTCC
ATCCTGGAGCTGGCAGTGAATAAAAGCCCGTATTTAC

FIGURE 847

DESSLLRRRGLQKELSLPRRGRGCRSGNRKSLVVGTPSPTLSRPLSPLSVPTAGSSPLDSPRNFSAASALNFPFA
RRADGRRWSLASLPSSGYGTNTPSSTLSSSSSSRERLHQLPFQPTPDELHFLSKHFRSSENVLDEEGGRSPRLRP
RSRSLSPGRATGTFDNEIVMMNHVYRERFPKATAQMEGRLQEFLTAYAPGARLALADGVLGFIHHQIVELARDCL
AKSGENLVTSRYFLEMQEKLERLLQDAHERSDSEEVSFIVQLVRKLLIIISRPARLLECLEFDPEEFYHLLEAAE
GHAREGQGIKTDLPQYIIGQLGLAKDPLEEMVPLSHLEEEQPPAPESPESRALVGQSRRKPCESDFETIKLISNG
AYGAVYLVRHRDTRQRFAIKKINKQNLILRNQIQQVFVERDILTFAENPFVVSMFCSFETRRHLCMVMEYVEGGD
CATLLKNMGPLPVDMARLYFAETVLALEYLHNYGIVHRDLKPDNLLITSLGHIKLTDFGLSKIGLMSMATNLYEG
HIEKDAREFIDKQVCGTPEYIAPEVIFRQGYGKPVDWWAMGVVLYEFLVGCVPFFGDTPEELFGQVVSDEIMWPE
GDEALPADAQDLITRLLRQSPLDRLGTGGTHEVKQHPFFLALDWAGLLRHKAEFVPQLEAEDDTSYFDTRSERYR
HLGSEDDETNDEESSTEIPQFSSCSHRFSKVYSSSEFLAVQPTPTFAERSFSEDREEGWERSEVDYGRRLSADIR
LRSWTSSGSSCQSSSSQPERGPSPSLLNTISLDTMPKFAFSSEDEGVGPGPAGPKRPVFILGEPDPPPAATPVMP
KPSSLSADTAALSHARLRSNSIGARHSTPRPLDAGRGRRLGGPRDPAPEKSRASSSGGSGGGSGGRVPKSASVSA
LSLIITADDGSGGPLMSPLSPRSLSSNPSSRDSSPSRDPSPVCGSLRPPIVIHSSGKKYGFSLRAIRVYMGDSDV
YTVHHVVWSVEDGSPAQEAGLRAGDLITHINGESVLGLVHMDVVELLLKSGNKISLRTTALENTSIKVGPARKNV
AKGRMARRSKRSRRRETQDRRKSLFKKISKQTSVLHTSRSFSSGLHHSLSSSESLPGSPTHSLSPSPTTPCRSPA
PDVPADTTASPPSASPSSSSPASPAAAGHTRPSSLHGLAAKLGPPRPKTGRRKSTSSIPPSPLACPPISAPPPRS
PSPLPGHPPAPARSPRLRRGQSADKLGTGERLDGEAGRRTRGPEAELVVMRRLHLSERRDSFKKQEAVQEVSFDE
PQEEATGLPTSVPQIAVEGEEAVPVALGPTGRD

FIGURE 848

AGAAGAAGCTGGCCAAGGATATGGGAGCAACCACC**ATG**GACCAGAAGTCTCTCTGGGCAGGTGTAGTGGTCTTGC
TGCTTCTCCAGGGAGGATCTGCCTACAAACTGGTTTGCTACTTTACCAACTGGTCCCAGGACCGGCAGGAACCAG
GAAAATTCACCCCTGAGAATATTGACCCCTTCCTATGCTCTCATCTCATCTATTCATTCGCCAGCATCGAAAACA
ACAAGGTTATCATCAAGGACAAGAGTGAAGTGATGCTCTACCAGACCATCAACAGTCTCAAAACCAAGAATCCCA
AACTGAAAATTCTCTTGTCCATTGGAGGGTACCTGTTTGGTTCCAAAGGGTTCCACCCTATGGTGGATTCTTCTA
CATCACGCTTGGAATTCATTAACTCCATAATCCTGTTTCTGAGGAACCATAACTTTGATGGACTGGATGTAAGCT
GGATCTACCCAGATCAGAAAGAAAACACTCATTTCACTGTGCTGATTCATGAGTTAGCAGAAGCCTTTCAGAAGG
ACTTCACAAAATCCACCAAGGAAAGGCTTCTCTTGACTGCGGGCGTATCTGCAGGGAGGCAAATGATTGATAACA
GCTATCAAGTTGAGAAACTGGCAAAAGATCTGGATTTCATCAACCTCCTGTCCTTTGACTTCCATGGGTCTTGGG
AAAAGCCCCTTATCACTGGCCACAACAGCCCTCTGAGCAAGGGGTGGCAGGACAGAGGGCCAAGCTCCTACTACA
ATGTGGAATATGCTGTGGGGTACTGGATACATAAGGGAATGCCATCAGAGAAGGTGGTCATGGGCATCCCCACAT
ATGGGCACTCCTTCACACTGGCCTCTGCAGAAACCACCGTGGGGGCCCCTGCCTCTGGCCCTGGAGCTGCTGGAC
CCATCACAGAGTCTTCAGGCTTCCTGGCCTATTATGAGATCTGCCAGTTCCTGAAAGGAGCCAAGATCACGCGCC
TCCAGGATCAGCAGGTTCCCTACGCAGTCAAGGGGAACCAGTGGGTGGGCTATGATGATGTGAAGAGTATGGAGA
CCAAGGTTCAGTTCTTAAAGAATTTAAACCTGGGAGGAGCCATGATCTGGTCTATTGACATGGATGACTTCACTG
GCAAATCCTGCAACCAGGGCCCTTACCCTCTTGTCCAAGCAGTCAAGAGAAGCCTTGGCTCCTTG**TGA**AGGATTA
ACTTACAGAGAAGCAGGCAAGATGACCTTGCTGCCTGGGGCCTGCTCTCTCCCAGGAATTCTCATGTGGGATTCC
CCTTGCCAGGCTGGCCTTTGGATCTCTCTTCCAAGCCTTTCCTGACTTCCTCTTAGATCATAGATTGGACCTGGT
TTTGTTTTCCTGCAGCTGTTGACTTGTTGCCCTGAAGTACAATAAAAAAAATTCATTTGCTCCAGTA

FIGURE 849

MDQKSLWAGVVVLLLLQGGSAYKLVCYFTNWSQDRQEPGKFTPENIDPFLCSHLIYSFASIENNKVIIKDKSEVM
LYQTINSLKTKNPKLKILLSIGGYLFGSKGFHPMVDSSTSRLEFINSIILFLRNHNFDGLDVSWIYPDQKENTHF
TVLIHELAEAFQKDFTKSTKERLLLTAGVSAGRQMIDNSYQVEKLAKDLDFINLLSFDFHGSWEKPLITGHNSPL
SKGWQDRGPSSYYNVEYAVGYWIHKGMPSEKVVMGIPTYGHSFTLASAETTVGAPASGPGAAGPITESSGFLAYY
EICQFLKGAKITRLQDQQVPYAVKGNQWVGYDDVKSMETKVQFLKNLNLGGAMIWSIDMDDFTGKSCNQGPYPLV
QAVKRSLGSL

FIGURE 850A

GGAATAACAAAACATGCTCTTAACCATCATCCCCCTCCAGAGAAGCTGGAGGAAATTTCCCCCACCAGTGACAGT
CATGAGAAAGACACAAGTTCCCAAAGCAAGTCTGACATCACAAGAGAATCATCTTTTACATCAGCCGACACTGGG
AATTCACTGTCTGCTTTTCCAAGTTATACAGGCGCAGGGATATCTACTGAAGGAAGCTCGGACTTCTCCTGGGGA
TATGGTGAACTCGATCAAAATGCCACTGAAAAAGTCCAGACAATGTTCACAGCCATTGATGAACTCTTGTATGAG
CAGAAGTTGAGTGTGCATACCAAGAGTCTACAAGAAGAGTGCCAACAGTGGACAGCTAGCTTTCCTCACCTCAGG
ATTCTAGGTAGGCAGATAATCACTCCAAGTGAAGGTTATAGATTGTATCCTAGATCCCCTTCTGCTGTTTCCGCT
TCATATGAAACAACCTTGTCTCAAGAAAGAGATTCTACTATATTTGGTATAAGGGGAAGAAGTTACATTTTTCA
TCTTCTTATGCTCATAAAGCATCTTCCATTGCCAAATCCTCCAGCTTTTGTTCTATGGAAAGAGATGAGGAAGAC
TCTATAATCGTCTCAGAAGGAATAATTGAGGAATACCTAGCATTCGATCACATAGATATAGAAGAGGGATTTCAT
GGGAAGAAATCAGAAGCAGCTACAGAGAAACAGAAATTAGGGTATCCTCCCATTGCTCCATTTTACTGCATGAAA
GAAGATGTCCTTGCTTATGTGTTTGACAGTGTATGGTGCAAGGTTGTGAGCTGTATGGAGCAGTTGACACGTAGT
CACTGGGAAGGATTTGCCTCTGATGATGAGAGTAATGTTGCAGTTACCAGACCCGATTCAGAAAGTTCCTGTGTG
CTGAGTGAACTACATCCTTGGTGTTACCGCGAGTGCCACAGTCTAAGGTGCTGTACATTACCTCAAATCCGATG
AGTCTCTGTCAAGCAAGCAGACATCAGCCAAATGTGAATGATCTCTTGGTTCATGGAATGCCTCTACAGCCAAGA
AATCTCTCCCTAATGGACAAGCTCCTAGATCTTGATGACAAGCTACTTATGAGGCCTGGGTCCAGTACCATCCTT
TCAACTCGAAATTGGCCAAATCGAGCTGTGGAGTTTAGTACATCATCTCTGTCATACACAGTGCAGTCCACCAGG
AGACGCAATCCACCACCACGAACTCTTCATCCGATCAGCACGAGCCATTCATGTGCTGAAACACCAAGATCTGTG
GAAGAAATCCTCAGAGGAGCCCGAGTCCCAGTGGCACCCGACTCGCTCTCCTCTCCCTCACCGACGCCCCTGAGT
CGAAATAATCTGCTACCACCTATTGGCACAGCTGAAGTGGAACATGTGAGCACTGTGGGGCCACAAAGACAGATG
AAACCCCATGGCGACTCTAGTCGAGCTCAAAGTGCGGTGGTGGATGAACCTAACTATCAGCAGCCACAAGAAAGG
CTCCTTTTGCCCGACTTTTTCCCCAGGCCCAACACAACTCAATCATTTTGCTGGATACACAGTATCGTCGCTCA
TGTGCAGTTGAGTATCCTCATCAGGCCCGACCTGGCAGGGGATCTGCAGGTCCTCAGTTACATGGGTCTACAAAA
TCTCAAAGCGGAGGCAGACCAGTCTCTCGAACCAGGCAGGGACCA**TAA**GGCAAATGAGAAGAATCTATCAGGCTG
CAGGAAACACGAGATTTCATGAAGCAGTATTCAGTCATCAAGTGATGCAGAGCTTGTATAGAAGATCGACTAGAA
ATCATCTTCATGAAGAGTGATTTTGGCACAAGTGACCGAAGAACAAAACACCATAGCAGCCAAAAATGACATGAG
TGTTGTTTCTATCTCCAGTTACTGTCTCTTTCAGCAGAAATTAACCTATCCCATTGGAAAGGCAAGTTTGTACCC
AAAGATGCAACAGTGAATAATACCCAAATCACTGCTCATGTTATCTCTTAACAATGATCAGTTCAATCATATAGG
ATTTGATGAGCTCACACATACACAAAAAGCAGCAAATCATCAGTGACAATATCACTGGCTTCAGAATACTTCAGC
CTGTGTTCATTTCTGGAGAGTTGTACTCAGTTTTAAGTCATTTGCTGTTGAAAATCTGACCTCATCAAATAGAT
GTCATTCCTAAAACTCTCTTTAGATGTCCTACCCTATCAGCAGATTAAAATGGAAGGGGTGTGTAACTAAAAACA
TAAATGTTAAGCATTAGTATAAAGTAACTTCTGTAATAAATTATATCGCATATTTTTTCAGATAGGACAGCTCAA
CCTTACGATGCCTACCTGATGCCAGGTGATGCTTATTTTCTTCCTAAAGTAGGTTACTGGTCATATCTTTTTTCC
AAATATTAAATGCACCTTGCCAGATATTCTCCTGCAGCTCTAAGGAAAGGAAATCAATTTAAAAATAATTTGTAG
AATCTACTATTGAGCCACCAAAGTATAATTCCCTAAAAGTTTAAGAAACCCTGGCAATTAATTCAGCATAAACAT
ATCCTATAAACAGCAGGAGAGGTTCAGCTTTCTGATTTTACTGTGGACCTTTTCCTAAGGGCATTCATGAATGCA
GCAACAGTTTTAACTATGGCTTACATTTATTTTAAATTTCACTAAATACAAATCTTGATTGTCATGCCAGTTTTA
GATCTTATTAATTTTCAGAATGGATAAATTCAAATAATCATAAATTACGGTAACTTTTATTATACCAAGGTGTT
CTAATGCCATCATATGAAGACAGATGCTTCAAACAACCTGCATTAAATTATATTTTTAATAAAATTAAAATCTAT
TTTTAACCTATTTGTAGTCACAAACCGAAACGTGTCGTCTTTACCTTAGAGCTAAAGGCTTACTTTATGCATAC
GGTATATTTAATAGTCTACAAATCAAAGATTTAAACAGTCCCTTAAAAATTCCATATATTTTCATACCAACTCAT
CTACATAGAAATGAAAATCTCTATTGTTCTCACAAACCATTACCATGAGTTCACTATAACAACTGGATCAATATG
GCTTGCCTTTCAAAGTTAAAGAATCAGAAAGGGGCCTGTAAGAAGTCATTTAGCCCAATTCCCTCACCCTGTGTG
TTTTCCCTCAAAGCCAGTGCAATTTTTTTTTAACCAAAAACTGGACATGTTAATACATACAGTTTGACAAATT
TGGATTTCACTCTTTGTTTTGATGTAGTAACTCTTTTATAAAAGGGAACAGATTCAGACAAGCTCAGTGGCCCAA
CTGAAGACATTCAGCAATTAATGGCAGGACTTCAGTAATCAGTGGCAGGACTACAACATACATCTCTTCATGCTA
GGGAAACCAGGCTCTCTATTATAAAGCTGACCAGGGCTATTGTTTTCCCCTTTTCTCTCATCCTAAACACCATTC
ATATTTTTCCTAGGTCACATTTTAGTGGGATCATTTACAAAGCCCCCAGAACTTAATCATCATGTTTTACCTTTT
TTATTGAATTATATACACCTCTTACAAAAATGCTTGAAGTAATTTAACACCTGTACATCAGTACAAAACCTGGCT

FIGURE 850B

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GAGTAAAATGAAGAGAGGATCTATTCAAGATCATTAAGACCAAATGTAAACTGGGAAGTATGTGGAAGATAGCTG
TCCAGCAAGTGTCTGGAAGGTGTTCTAGCTGGGTAGAGAGCCTATTCTAACAGACACGCACATCGCAGAAAGCAG
CATGAACAGAACCACATCCTAGATAAGAGTTCTGTGTACAGAAGATCCATGGAGGCAAGTGCTGTCAGGAAGGAC
ACTGCCTCCCTCCACCCTCCCAAATGTCACCACCAAGTTCCTTCAGGTGAGACCTCACACAATGTCAAGTGCTTT
CTAGGAAATACTAAGATCAGGTTGAGAGATTCTGCTTGGTCTAGTCAATCTGAAAAATTCAGGCTGGAAAGACAC
CTTTTCTCAAGAGCTGAATTGACTTTTGCCTTCAAATCCTGCCTGCACCTTGCCTACGATGGCATCAATTTACAC
CTAAGGACCTTTGAAGAGAAAAATTCCATTATTTCTTTTCTTTCTTGAGAGCAGATTTTTTCCCTCCTCCTTTGG
AAGATTTGCAGTACTTTGCTTCCATCTGAGCCAGAAAATTGTCCATTTCCTTTTGCCGATCCTTTTGTCTGCTCT
GTTTGAGAAGTTAAAACACAAGCTTTCACAACATTATCCATAGACAGAAAGTACCTAGTGGTTGCCAGGGGCTGG
AAAAGTGGAATAACTACTAATGGGTATGGAGTTTTTTTGGAATGGTGAAAATGTCCTACAATTGGTGTTAATAAT
TGTAAAACTTTGTAAATACACTTAAAACCACCAAATTGTACACTTTAAAAGGACAAATAGAAGGTATGCGGTTAT
GTCTTAAAAGAAGAAAACAAAATACAACATTCCAAAGAAAATATTAGCAGTAGGAATCAGATCATTAAAGATGTG
GCAACAAACTGCCAAGTTTACCTGAATGGCTGCCTTCAGGCTATCCACGCCTTCATCAAGCCCCAACTCCTTTCT
GCTCATTTCTGCTTCTTTGGCCTCTTCCTGAGCCTGAAACAGGAACTCACATGAGACTCAGGGCCACCAGGAAAT
GCTTAAAATACATACTCTTTCCCAAAAGCAAATCTATAATTCTGTTTCAATTTTATGAATATATGAATAGACAAA
ATGAATCGAATTACATAACTATGTCATTCATTAAATGGCAACAATGCTGACAGCAAGCAGTAGATCCTCTGATTC
CAATTACCATTTGTTTTTTACCCAATTCTATTTGCTAGAGGTAGTAAGTACTCTGGCACTCATAAATCACATGAT
GATAAAAAGGAACATGAGGCCGGGTATGGTGGCTCACAACTGTAATCCCCATACCTTGGGAGGCCAAGGTGGGAG
GATCACTTGAACTCAGGAGTTCAAGACCTGCCTGGGTAACATAGTGAGACCTCAGTTCTATAAAAAAGAAAAGAA
ATGAGCCTGGTGTGGTGGCATGTGCTTGTAGTCCCAGCTACTAGGGAGGCTGAGGTGGGAAGATGGCTTCAGTCT
GAGAGTTCAGGCTGCAATAAGCTGTGATCATGCCTCTGCACTCCAGCCTGGGTGATGGAGATGCCATCTCTTAGA
AAAAAGAG
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FIGURE 851

GITKHALNHHPPPEKLEEISPTSDSHEKDTSSQSKSDITRESSFTSADTGNSLSAFPSYTGAGISTEGSSDFSWG
YGELDQNATEKVQTMFTAIDELLYEQKLSVHTKSLQEECQQWTASFPHLRILGRQIITPSEGYRLYPRSPSAVSA
SYETTLSQERDSTIFGIRGKKLHFSSSYAHKASSIAKSSSFCSMERDEEDSIIVSEGIIEEYLAFDHIDIEEGFH
GKKSEAATEKQKLGYPPIAPFYCMKEDVLAYVFDSVWCKVVSCMEQLTRSHWEGFASDDESNVAVTRPDSESSCV
LSELHPLVLPRVPQSKVLYITSNPMSLCQASRHQPNVNDLLVHGMPLQPRNLSLMDKLLDLDDKLLMRPGSSTIL
STRNWPNRAVEFSTSSLSYTVQSTRRRNPPPRTLHPISTSHSCAETPRSVEEILRGARVPVAPDSLSSPSPTPLS
RNNLLPPIGTAEVEHVSTVGPQRQMKPHGDSSRAQSAVVDEPNYQQPQERLLLPDFFPRPNTTQSFLLDTQYRRS
CAVEYPHQARPGRGSAGPQLHGSTKSQSGGRPVSRTRQGP

FIGURE 852A

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GGAATAACAAAACATGCTCTTAACCATCATCCCCCTCCAGAGAAGCTGGAGGAAATTTCCCCCACCAGTGACAGT
CATGAGAAAGACACAAGTTCCCAAAGCAAGTCTGACATCACAAGAGAATCATCTTTTACATCAGCCGACACTGGG
AATTCACTGTCTGCTTTTCCAAGTTATACAGGCGCAGGGATATCTACTGAAGGAAGCTCGGACTTCTCCTGGGGA
TATGGTGAACTCGATCAAAATGCCACTGAAAAAGTCCAGACAATGTTCACAGCCATTGATGAACTCTTGTATGAG
CAGAAGTTGAGTGTGCATACCAAGAGTCTACAAGAAGAGTGCCAACAGTGGACAGCTAGCTTTCCTCACCTCAGG
ATTCTAGGTAGGCAGATAATCACTCCAAGTGAAGGTTATAGATTGTATCCTAGATCCCCTTCTGCTGTTTCCGCT
TCATATGAAACAACCTTGTCTCAAGAAAGAGATTCTACTATATTTGGTATAAGGGGAAGAAGTTACATTTTTCA
TCTTCTTATGCTCATAAAGCATCTTCCATTGCCAAATCCTCCAGCTTTTGTTCTATGGAAAGAGATGAGGAAGAC
TCTATAATCGTCTCAGAAGGAATAATTGAGGAATACCTAGCATTCGATCACATAGATATAGAAGAGGGATTTCAT
GGGAAGAAATCAGAAGCAGCTACAGAGAAACAGAAATTAGGGTATCCTCCCATTGCTCCATTTTACTGCATGAAA
GAAGATGTCCTTGCTTATGTGTTTGACAGTGTATGGTGCAAGGTTGTGAGCTGTATGGAGCAGTTGACACGTAGT
CACTGGGAAGGATTTGCCTCTGATGATGAGAGTAATGTTGCAGTTACCAGACCCGATTCAGAAAGTTCCTGTGTG
CTGAGTGAACTACATCCTTTGGTGTTACCGCGAGTGCCACAGTCTAAGGTGCTGTACATTACCTCAAATCCGATG
AGTCTCTGTCAAGCAAGCAGACATCAGCCAAATGTGAATGATCTCTTGGTTCATGGAATGCCTCTACAGCCAAGA
AATCTCTCCCTAATGGACAAGCTCCTAGATCTTGATGACAAGCTACTTATGAGGCCTGGGTCCAGTACCATCCTT
TCAACTCGAAATTGGCCAAATCGAGCTGTGGAGTTTAGTACATCATCTCTGTCATACACAGTGCAGTCCACCAGG
AGACGCAATCCACCACCACGAACTCTTCATCCGATCAGCACGAGCCATTCATGTGCTGAAACACCAAGATCTGTG
GAAGAAATCCTCAGAGGAGCCCGAGTCCCAGTGGCACCCGACTCGCTCTCCTCTCCCTCACCGACGCCCCTGAGT
CGAAATAATCTGCTACCACCTATTGGCACAGCTGAAGTGGAACATGTGAGCACTGTGGGGCCACAAAGACAGATG
AAACCCCATGGCGACTCTAGTCGAGCTCAAAGTGCGGTGGTGGATGAACCTAACTATCAGCAGCCACAAGAAAGG
CTCCTTTTGCCCGACTTTTTCCCCAGGCCCAACACAACTCAATCATTTTGCTGGATACACAGTATCGTCGCTCA
TGTGCAGTTGAGTATCCTCATCAGGCCCGACCTGGCAGGGGATCTGCAGGTCCTCAGTTACATGGGTCTACAAAA
TCTCAAAGCGGAGGCAGACCAGTCTCTCGAACCAGGCAGGGACCATAAGGCAAATGAGAAGAATCTATCAGGCTG
CAGGAAACACGAGATTTCATGAAGCAGTATTCAGTCATCAAGTGATGCAGAGCTTGTATAGAAGATCGACTAGAA
ATCATCTTCATGAAGAGTGATTTTGGCACAAGTGACCGAAGAACAAAACACCATAGCAGCCAAAAATGACATGAG
TGTTGTTTCTATCTCCAGTTACTGTCTCTTTCAGCAGAAATTAACCTATCCCATTGGAAAGGCAAGTTTGTACCC
AAAGATGCAACAGTGAATAATACCCAAATCACTGCTCATGTTATCTCTTAACAATGATCAGTTCAATCATATAGG
ATTTGATGAGCTCACACATACACAAAAAGCAGCAAATCATCAGTGACAATATCACTGGCTTCAGAATACTTCAGC
CTGTGTTCATTTCTGGAGAGTTGTACTCAGTTTTAAGTCATTTGCTGTTGAAAATCTGACCTCATCAAATAGAT .
GTCATTCCTAAAACTCTCTTTAGATGTCCTACCCTATCAGCAGATTAAAATGGAAGGGGTGTGTAACTAAAAACA
TAAATGTTAAGCATTAGTATAAAGTAACTTCTGTAATAAATTATATCGCATATTTTTTCAGATAGGACAGCTCAA
CCTTACGATGCCTACCTGATGCCAGGTGATGCTTATTTTCTTCCTAAAGTAGGTTACTGGTCATATCTTTTTTCC
AAATATTAAATGCACCTTGCCAGATATTCTCCTGCAGCTCTAAGGAAAGGAAATCAATTTAAAAATAATTTGTAG
AATCTACTATTGAGCCACCAAAGTATAATTCCCTAAAAGTTTAAGAAACCCTGGCAATTAATTCAGCATAAACAT
ATCCTATAAACAGCAGGAGAGGTTCAGCTTTCTGATTTTACTGTGGACCTTTTCCTAAGGGCATTCATGAATGCA
GCAACAGTTTTAACTATGGCTTACATTTATTTTAAATTTCACTAAATACAAATCTTGATTGTCATGCCAGTTTTA
GATCTTATTAATTTTCAGAATGGATAAATTCAAATAATCATAAATTACGGTAACTTTTATTATACCAAGGTGTT
CTAATGCCATCATATGAAGACAGATGCTTCAAACAACCTGCATTAAATTATATTTTTAATAAAATTAAAATCTAT
TTTTAACCTATTTGTAGTCACAAACCGAAACGTGTCGTCTTTACCTTAGAGCTAAAGGCTTACTTTATGCATAC
GGTATATTTAATAGTCTACAAATCAAAGATTTAAACAGTCCCTTAAAAATTCCATATATTTTCATACCAACTCAT
CTACATAGAAATGAAAATCTCTATTGTTCTCACAAACCATTACCATGAGTTCACTATAACAACTGGATCAATATG
GCTTGCCTTTCAAAGTTAAAGAATCAGAAAGGGGCCTGTAAGAAGTCATTTAGCCCAATTCCCTCACCCTGTGTG
TTTTCCCTCAAAGCCAGTGCAATTTTTTTTTAACCAAAAAACTGGACATGTTTAATACATACAGTTTGACAAATT
TGGATTTCACTCTTTGTTTTGATGTAGTAACTCTTTTATAAAAGGGAACAGATTCAGACAAGCTCAGTGGCCCAA
CTGAAGACATTCAGCAATTAATGGCAGGACTTCAGTAATCAGTGGCAGGACTACAACATACATCTCTTCATGCTA
GGGAAACCAGGCTCTCTATTATAAAGCTGACCAGGGCTATTGTTTTCCCCTTTTCTCTCATCCTAAACACCATTC
ATATTTTTCCTAGGTCACATTTTAGTGGGATCATTTACAAAGCCCCCAGAACTTAATCATCATGTTTTACCTTTT
TTATTGAATTATATACACCTCTTACAAAAATGCTTGAAGTAATTTAACACCTGTACATCAGTACAAAACCTGGCT
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FIGURE 852B

GAGTAAAATGAAGAGAGGATCTATTCAAGATCATTAAGACCAAATGTAAACTGGGAAGTATGTGGAAGATAGCTG
TCCAGCAAGTGTCTGGAAGGTGTTCTAGCTGGGTAGAGAGCCTATTCTAACAGACACGCACATCGCAGAAAGCAG
CATGAACAGAACCACATCCTAGATAAGAGTTCTGTGTACAGAAGATCCATGGAGGCAAGTGCTGTCAGGAAGGAC
ACTGCCTCCCTCCACCCTCCCAAATGTCACCACCAAGTTCCTTCAGGTGAGACCTCACACAATGTCAAGTGCTTT
CTAGGAAATACTAAGATCAGGTTGAGAGATTCTGCTTGGTCTAGTCAATCTGAAAAATTCAGGCTGGAAAGACAC
CTTTTCTCAAGAGCTGAATTGACTTTTGCCTTCAAATCCTGCCTGCACCTTGCCTACGATGGCATCAATTTACAC
CTAAGGACCTTTGAAGAGAAAAATTCCATTATTTCTTTTCTTTCTTGAGAGCAGATTTTTTCCCTCCTCCTTTGG
AAGATTTGCAGTACTTTGCTTCCATCTGAGCCAGAAAATTGTCCATTTCCTTTTGCCGATCCTTTTGTCTGCTCT
GTTTGAGAAGTTAAAACACAAGCTTTCACAACATTATCCATAGACAGAAAGTACCTAGTGGTTGCCAGGGGCTGG
AAAAGTGGAATAACTACTAATGGGTATGGAGTTTTTTTGGAATGGTGAAAATGTCCTACAATTGGTGTTAATAAT
TGTAAACTTTGTAAATACACTTAAAACCACCAAATTGTACACTTTAAAAGGACAAATAGAAGGTATGCGGTTAT
GTCTTAAAAGAAGAAACAAAATACAACATTCCAAAGAAAATATTAGCAGTAGGAATCAGATCATTAAAGATGTG
GCAACAAACTGCCAAGTTTACCTGAATGGCTGCCTTCAGGCTATCCACGCCTTCATCAAGCCCCAACTCCTTTCT
GCTCATTTCTGCTTCTTTGGCCTCTTCCTGAGCCTGAAACAGGAACTCACATGAGACTCAGGGCCACCAGGAAAT
GCTTAAAATACATACTCTTTCCCAAAAGCAAATCTATAATTCTGTTTCAATTTTATGAATATATGAATAGACAAA
ATGAATCGAATTACATAACTATGTCATTCATTAAATGGCAACAATGCTGACAGCAAGCAGTAGATCCTCTGATTC
CAATTACCATTTGTTTTTTACCCAATTCTATTTGCTAGAGGTAGTAAGTACTCTGGCACTCATAAATCACATGAT
GATAAAAAGGAACATGAGGCCGGGTATGGTGGCTCACAACTGTAATCCCCATACCTTGGGAGGCCAAGGTGGGAG
GATCACTTGAACTCAGGAGTTCAAGACCTGCCTGGGTAACATAGTGAGACCTCAGTTCTATAAAAAAGAAAAGAA
ATGAGCCTGGTGTGGTGGCATGTGCTTGTAGTCCCAGCTACTAGGGAGGCTGAGGTGGGAAGATGGCTTCAGTCT
GAGAGTTCAGGCTGCAATAAGCTGTGATCATGCCTCTGCACTCCAGCCTGGGTGATGGAGATGCCATCTCTTAGA
AAAAAGAG

FIGURE 853A

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GCGGCGGTGCGGCCCAGGCTGCAGCTGAGCGCTCTGCGCGGCGCAGCCGGGTCTCCCGCGTGTACCACGCCGTGA
CAGGTGCAGAGTCCGGGCTGAGGACCCACCTGCAGCCGCCGCCGCGATGCCCACCATGCGGAGGACCGTGTCGGA
GATCCGCTCGCGCGCCGAAGGTTATGAGAAGACAGATGATGTTTCAGAGAAGACCTCACTGGCTGACCAGGAGGA
AGTAAGGACTATTTTCATCAACCAGCCCCAGCTGACAAAATTCTGCAATAACCATGTCAGCACTGCAAAATACAA
CATAATCACATTCCTTCCAAGATTTCTCTACTCTCAGTTCAGAAGAGCTGCTAATTCATTTTTTCTCTTTATTGC
ACTGCTGCAGCAAATACCTGATGTGTCACCAACAGGTCGTTATACAACACTGGTTCCTCTCTTATTTATTTTAGC
TGTGGCAGCTATCAAAGAGATAATAGAAGATATTAAACGACATAAAGCTGATAATGCAGTGAACAAGAAACAAAC
GCAAGTTTTGAGAAATGGTGCTTGGGAAATTGTCCACTGGGAAAAGGTGGCAGTAGGGGAGATAGTGAAAGTGAC
CAATGGGGAACATCTCCCAGCAGATCTCATCAGTCTGTCCTCAAGTGAGCCCCAAGCCATGTGCTACATTGAAAC
ATCCAACTTAGATGGTGAAACAAACTTGAAAATTAGACAGGGCTTACCAGCAACATCAGATATCAAAGACGTTGA
CAGTTTGATGAGGATTTCTGGCAGAATTGAGTGTGAAAGTCCAAACAGACATCTCTACGATTTTGTTGGAAACAT
AAGGCTTGATGGACATGGCACCGTTCCACTGGGAGCAGATCAGATTCTTCTTCGAGGAGCTCAGTTGAGAAATAC
ACAGTGGGTTCATGGAATAGTTGTCTACACTGGACATGACACCAAGCTGATGCAGAATTCAACAAGTCCACCACT
TAAGCTCTCAAATGTGGAACGGATTACAAATGTACAAATTTTGATTTATTTTGTATCTTAATTGCCATGTCTCT
TGTCTGTTCTGTGGGCTCAGCCATTTGGAATCGAAGGCATTCTGGAAAAGACTGGTATCTCAATCTAAACTATGG
TGGCGCTAGTAATTTTGGACTGAATTTCTTGACCTTCATCATCCTTTTCAACAATCTCATTCCTATCAGCTTATT
GGTTACATTAGAAGTTGTGAAATTTACCCAGGCATACTTCATAAATTGGGATCTTGACATGCACTATGAACCCAC
AGACACTGCTGCTATGGCTCGAACATCTAATCTGAATGAGGAACTTGGCCAGGTTAAATACATATTTTCTGACAA
AACTGGTACTCTGACATGCAATGTAATGCAGTTTAAGAAGTGCACCATAGCGGGAGTTGCTTATGGCCATGTCCC
TGAACCTGAGGATTATGGCTGCTCTCCTGATGAATGGCAGAACTCACAGTTTGGAGATGAAAAAACATTTAGTGA
TTCATCATTGCTGGAAAATCTCCAAAATAATCATCCAACTGCACCTATAATATATGAATTTCTTACAATGATGGC
AGTCTGTCACACAGCAGTGCCAGAGCGAGAAGGTGACAAGATTATTTATCAAGCAGCATCTCCAGATGAGGGAGC
ATTGGTCAGAGCAGCCAAGCAATTGAATTTTGTTTTCACTGGAAGAACACCCGACTCGGTGATTATAGATTCACT
GGGGCAGGAAGAAAGATATGAATTGCTCAATGTCTTGGAGTTTACCAGTGCTAGGAAAAGAATGTCAGTGATTGT
TCGCACTCCATCTGGAAAGTTACGACTCTACTGCAAAGGAGCTGACACTGTAATTTATGATCGACTGGCAGAGAC
GTCAAAATACAAAGAAATTACCCTAAAACATTTAGAGCAGTTTGCTACAGAAGGGTTAAGAACTTTATGTTTTGC
TGTGGCTGAGATTTCAGAGAGCGACTTTCAGGAGTGGCGAGCAGTCTATCAGCGAGCATCTACATCTGTGCAGAA
CAGGCTACTCAAACTCGAAGAGAGTTATGAGTTGATTGAAAAGAATCTTCAGCTACTTGGAGCAACAGCCATTGA
GGATAAATTACAAGATCAAGTGCCTGAAACCATAGAAACGCTAATGAAAGCAGACATCAAAATCTGGATCCTTAC
AGGGGACAAGCAAGAAACTGCCATTAACATCGGACACTCCTGCAAACTGTTGAAGAAGAACATGGGAATGATTGT
TATAAATGAAGGCTCTCTTGATGGAACAAGGGAAACTCTCAGTCGTCACTGTACTACCCTTGGTGATGCTCTCCG
GAAAGAGAATGATTTTGCTCTTATAATTGATGGGAAAACCCTCAAATATGCCTTAACCTTTGGAGTACGACAGTA
TTTCCTGGACTTAGCTTTGTCATGCAAAGCTGTCATTTGCTGTCGGGTTTCTCCTCTTCAAAAATCTGAAGTTGT
TGAGATGGTTAAGAAACAAGTCAAAGTCGTAACGCTTGCAATCGGTGATGGAGCAAATGATGTCAGCATGATACA
GACAGCGCACGTTGGTGTTGGTATCAGTGGCAATGAAGGCCTGCAGGCAGCTAATTCCTCTGACTACTCCATAGC
TCAGTTCAAATATTTGAAGAATTTACTGATGATTCATGGTGCCTGGAACTATAACAGAGTCTCCAAGTGCATCTT
ATACTGCTTCTACAAGAATATAGTGCTCTATATTATCGAGATCTGGTTTGCCTTTGTTAATGGCTTTTCTGGACA
GATCCTCTTTGAAAGATGGTGTATAGGTCTCTATAACGTGATGTTACAGCAATGCCTCCTTTAACTCTTGGAAT
ATTTGAGAGATCATGCAGAAAAGAGAACATGTTGAAGTACCCTGAATTATACAAAACATCTCAGAATGCCCTGGA
CTTCAACACCAAGGTTTTCTGGGTTCATTGTTTAAATGGCCTCTTCCACTCAGTTATTCTGTTTTGGTTTCCACT
AAAAGCCCTTCAGTATGGTACTGCATTTGGAAATGGGAAAACCTCGGATTATCTGCTACTGGGAAACTTTGTGTA
CACTTTTGTGGTGATAACTGTGTGTTTGAAAGCTGGATTGGAGACATCATATTGGACATGGTTCAGCCACATAGC
GATATGGGGGAGCATCGCACTCTGGGTGGTGTTTTGGGAATCTACTCATCTCTGTGGCCTGCCATTCCGATGGC
CCCTGATATGTCAGGAGAGGCAGCCATGTTGTTCAGTTCTGGAGTCTTTTGGATGGGCTTGTTATTCATCCCTGT
GGCATCTCTGCTCCTTGATGTGGTGTACAAGGTTATCAAGAGGACTGCTTTTAAAACATTGGTCGATGAAGTTCA
GGAGCTGGAGGCAAAATCTCAAGACCCAGGAGCAGTTGTACTTGGAAAAAGCCTGACCGAGAGGGCGCAACTGCT
CAAGAACGTCTTTAAGAAGAACCACGTGAACTTGTACCGCTCTGAATCCTTGCAACAAAATCTGCTCCATGGGTA
TGCGTTCTCTCAAGATGAAAATGGAATCGTTTCACAGTCTGAAGTGATAAGAGCATATGATACCACGAAACAGAG
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FIGURE 853B

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GCCCGACGAATGGTGATGGGGAGAGCCTGAAAGGCAGGCTCTGTTACCTCTCTAAGGAGAGCTACCAGGTTGTCA
CCGCAGTCTGCTAACCAATTCCAGTCTGGTCCATGAAGAGGAAAGGTAGATCTGAGCTCATCTCGCTGATGGACA
TTCAGATTCATGTATATTATAGACATAAGCACTGTGCAACTGTACTGTAACACCATCTCTTTTGGATTTTTTAA
GGTATTTGCTAAGTCTTTGTAAACGGAAATTGAAAATGACCTGGTATCTTGCCAGAGGGCTTTCTTAAACGGAGA
ATAAGTCAGTATTCTTATGCCATTACTGTGGGGCTGTAACTGACTGTCAGTTTATTGGCTGTACCACAAGGTAAC
CAACCATTAAAAAACTCTAAATGATATTTAGTTAAAGGGACTCTTGGTATCCAGACTTAGATTTCAGGATATGCT
GAAACAAACCAGCATTCTTAAGGAACTGACTCACCTTCCTGAGCAAAATTTCTAAACAAGCATTTGTGTCCAAAA
TTGTCTTGATAAATGTTTGCCAAAGAGGTTCAGTAAGTGTTTTTCTAGTTCAGTAGTCATATGCCCAGAAATGTA
AGAGAAAGTTTACTTCCAGTTCCGCTGTAAGATCTGCATGCCTGACTTTCCAAATGTAAGAGTGATTTACAAAAA
TGAATATTTCAAGGCATTTGCTACTAAAATCGGTGATGTTGCACCTTTGGCCTTACAAATGCTTCTTTGTTGTTT
GTCGTGTTTATTTGTTAGAGGACACACGTGTTAATGTGACTCTGTTGTTATGACACTGATTTTTCAAACTATGTA
TGTTTCAGGTATTTCTGATGAAGTTTCATCATCATTTAGATTTTTCTAAAAATCTGGCTAATGCAGTAGATTGAG
TGATGTCATTTTGTCTTAAAGTTTTTCCTCTTAAGAAACATATGCTACGTATTTACGTGGGATTTCCAAAGCTTC
TGTTGCAATATTTGGAATAACATGTCAGATAAATGCATGGGCTTTTGTCCTGTGTTCCAGTTCCCACTAGAGATG
CCTGTGTCTTGTGTAGCACACCCAGTGTTATGGTGACTGCCCCCTATACTGAAGACTGAAAATTATTTCACAGTT
CACTCATCAAATAGTTCCCAAAATTCGTCACATGCTGCTTATTGGGACAAATAGGTAGTACATTTTCCCCATTTA
AAAAATGCGGATTTTACTCAGGCCGGTAACTTTACAGTCAGAGGACACGTTCATCATGAGTAGCTTTTGTTAGTA
TGTTTTAAAATGTATCTTCAGTTCAATTATTTTCAGCATTTACAAGACATCTGAAAATGGCTATTTTGCTACCAA
CAGTAAATGAAGGGGCTGTTTAAAAACCACAACCAGTTTTCTACACTATTTTTTAAATAATACTTTCATTTGAAA
AAAAGGAATTAGTTTTCAGATACACTTCAGAGATTGAAGCAAACTATTTGCCTTTTACTCAAAAGCCTGCTTGCC
TTTACATGGACTTACCAGCAAAATAGGTAGAACTTTCTCTTTTAAAAAAAGTCAACTAGAATTGAGAAGAGGTGA
TTTTTTTTCAGATCGCTTCTCGAGTTTAATATTTTCACATTCTTTTCACCCTTTTTCTAATCTAGATTTAAAAT
TAGGATATATGTCATTTCCTTGTCTGTATTTGTAGCTCCTTAGTTACCAGTATGCCTCTCCATTTTCTACAAATA
AGAGGTTATAACACATATACATAATTCTAACCTTAAGGGAACACACGTTTACATACTTTACTTCCCAAGCCCTTC
CTGTTTGGGGTACAGATTGAGAGAGTCATGAATCAACACATCTAGCAAGACCACAGGTGTAAGAGTCTAAGATCG
TCTTCAAAATTCTGAAGTCCCAGTCTTTACCTGTCCAGTGAATGAATATTCAGAGCAGCTTTTCCTGGGCTTCCC
AGTGGTGATAGCTGAGGTCAAACCACAAAAAATAAGAAAGCAAGAGTGAAATGCACCCCTCCAGAGAAACACTTT
GTAGTGTTTAATTCTGTTAATAGAGAAGAGCTGCTTCTGTTTGCGCTCACTTCATCAGTGGCACCCTTCTGCAGA
ATTTTAATATAAAAACATTATGGATATAATAGAACTGGATTTTCTGACTTAAAAATGTAAGTTTTATTTTAATCT
TGAAACGTGGATTGTTTCTGTGGAGCTCTTAAACATGAGAAGAATACTTACGGTTGATAATGTGTAACATGATCT
GAAATGTGACTAATTTGAGCCTCTTTGTCCCATCGTCCTGTTTTTGAATTATTGACATTGTCAGTCTCTTTGCTT
CCTGGGTGAGACTTGGGGTTTGAGGGACAGGGAATGACCTTCTTGGTGAAACTTAAAATATAACATTGCAATTGC
AGTGACTTTACAGTGTTAAATTAGAGAAAATAGTCTGATTTTTTAAACCTTCCTTAACTGGAAAAAAGTCACATG
GTTTTACCAGGATTGAAATAAACAGTCAATGTGACTTTTAACATGTGTTTTTTTGAAATAAAGGGCACGTACTCT
TCAATTAAAAAGTTCCTTATAGGGACTCTGGCAAATGCTAACACAGTTGCTTTACAATGTTTACAATTCAGACAA
TACGACTTATAATAGAAAATCCTCATTCATTTAGCATTGAAAAGCTGGAAGTTGCTTCTTTAATGTTGAATAGTA
TACAGTGGTATTGAGCATGGACTTTCTAAATGTTTTATATACATATAAAAATATATTGGTGTCTCACACCCAG
AAAGATGTTATATTGTAGATATTATTAGGAAACAGTGTTTCTCAGGAACGTTGTAAATTTTAAATGATATATGT
ACTTCCCGTCCTCCCACCTCCACTCTGTGCTCTAATGTGAGACTGCTTCAGCAGTGTTGCTAAGTTAATGGAAAA
CTTTTTCTAATCAAGTCAGGTGAATGTGTATTCTGCTAAATAATGTTAGCCATTACATGAATTGTATGGTCATT
AAATGGAATCAGTGATTCCTCTTTAATTTCCAGAGGGGAAATGAATTATGGAAATCAGTCAGCATTCTGATCATT
AAATTTTATACTTTAATTTTGCCGTTCAGCATTCTAAATATCCAATGTGAAAGTCACATGATAATTTGTTTTGCA
TTGCGTGCACTGTACAACACTTACAACTTGTCATTTAAAATGTTTTCTCGGGAAATGAATGCTAGTCAGAAAGTA
ATAGATTGTATTATTCATAGTTTTAAAATTATGACAATGTCATAATTACTACAAAGCTAAATAATCGTGTTTATT
TTTGTGCAGTTGCCCTTTGATAGTTCCTGGTTTTAAAACCTATTAAGTGTATAATCTTACAAATAGTCATCTACA
AAATTTATGGAGAAAGTGCCCAGCCCATTCACATCACATGGACCAGGAATTCTTTTGTAAATGACTTAAGGTAAC
ATCATGCAGTTCAGTGCCTAATAAATGCTTTTAATGATGAGCATTTCTATAATGACTCGTAAGATACCATAGTC
TGATTTTTCTCACATTAAAATAACTGAAGTCACTTGTGTAACGTAGTTATACTTTGCTGCATTTTAATTAACCTT
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FIGURE 853C

CAACAGCTATTAAAGTGGAATGTAAGTTAAATTTTGAAGGAAAGGAAATAAATGTTTTCCATATTTCGTCTTGAT
TTACTTTCTGTATGAGAACAGCTGTGTTTTTGATAGGTTTATGGTTTGCATGAGTTCATATTTAAAGTGATCCAG
GCCAATGCATGGCTATTGCTGTAAATCTTGATGTTTATTTCTGCCTTGTAAAGTTCTATCACGGCCTACCTGGAA
TTTAAAATTCAGTAGACAAATTAATTGGTCCTCTGCACAACTTTTTTAATAAGTAGATTATTTTACAAAGAAATT
TGAACAAATTTAATTGAATCTTTTGTTTAGCTTGCCTCTAAGAACTTTTCTTAATAAAGCTCCCAAAACTTCTCA
GCAAATAAATCTCCCTTAAGTAGGAAAACTAGATTTCATATTTGCTTACTTTGAATTAACAGCAACTTTCCACAG
GTAAATCTGTTCTTGCAAAGATGTGAGCAGAATAGTTAAAAATAATATTTTTATGTTTCATGGTTCTAAATGGAA
GCCATAAATGCAGTAAATACTATCTGTTGTTAACTACTTTAATCGTCATTTTTACATTTTCAAGTTTATTAGG
TTAAGAAAAACAGGGCAGCCTTGGAAGGCAGCTACTACAGAAACTGCAGTTTTGCGTTAAAGATAAAGTAGTAT
TTTCAGCTCCCTGAAAAACCATTCCTGCTGAAACTGCTGTAGAAATTGTGAAGCTGCATGAGTGGAGAGTATTGA
ATCTGTGGTTATAGTAGTTTTCTCAGGTTTGTTTATCTTGATGTTTGATGCACTGTGTTTTATAGTTATTAAAAT
TGAGTAATATTATTTCTATGCAGTGTTATGTGTCATTGGCCTTTTGTGAATGTGCATGTTTTAAACTGCAAATTT
TAAACATTTTGTCCTCTAATTGTTATTAAAAATGAAATAAACTTTACCATTACTTAAAAAAA

FIGURE 854

MPTMRRTVSEIRSRAEGYEKTDDVSEKTSLADQEEVRTIFINQPQLTKFCNNHVSTAKYNIITFLPRFLYSQFRR
AANSFFLFIALLQQIPDVSPTGRYTTLVPLLFILAVAAIKEIIEDIKRHKADNAVNKKQTQVLRNGAWEIVHWEK
VAVGEIVKVTNGEHLPADLISLSSSEPQAMCYIETSNLDGETNLKIRQGLPATSDIKDVDSLMRISGRIECESPN
RHLYDFVGNIRLDGHGTVPLGADQILLRGAQLRNTQWVHGIVVYTGHDTKLMQNSTSPPLKLSNVERITNVQILI
LFCILIAMSLVCSVGSAIWNRRHSGKDWYLNLNYGGASNFGLNFLTFIILFNNLIPISLLVTLEVVKFTQAYFIN
WDLDMHYEPTDTAAMARTSNLNEELGQVKYIFSDKTGTLTCNVMQFKKCTIAGVAYGHVPEPEDYGCSPDEWQNS
QFGDEKTFSDSSLLENLQNNHPTAPIIYEFLTMMAVCHTAVPEREGDKIIYQAASPDEGALVRAAKQLNFVFTGR
TPDSVIIDSLGQEERYELLNVLEFTSARKRMSVIVRTPSGKLRLYCKGADTVIYDRLAETSKYKEITLKHLEQFA
TEGLRTLCFAVAEISESDFQEWRAVYQRASTSVQNRLLKLEESYELIEKNLQLLGATAIEDKLQDQVPETIETLM
KADIKIWILTGDKQETAINIGHSCKLLKKNMGMIVINEGSLDGTRETLSRHCTTLGDALRKENDFALIIDGKTLK
YALTFGVRQYFLDLALSCKAVICCRVSPLQKSEVVEMVKKQVKVVTLAIGDGANDVSMIQTAHVGVGISGNEGLQ
AANSSDYSIAQFKYLKNLLMIHGAWNYNRVSKCILYCFYKNIVLYIIEIWFAFVNGFSGQILFERWCIGLYNVMF
TAMPPLTLGIFERSCRKENMLKYPELYKTSQNALDFNTKVFWVHCLNGLFHSVILFWFPLKALQYGTAFGNGKTS
DYLLLGNFVYTFVVITVCLKAGLETSYWTWFSHIAIWGSIALWVVFLGIYSSLWPAIPMAPDMSGEAAMLFSSGV
FWMGLLFIPVASLLLDVVYKVIKRTAFKTLVDEVQELEAKSQDPGAVVLGKSLTERAQLLKNVFKKNHVNLYRSE
SLQQNLLHGYAFSQDENGIVSQSEVIRAYDTTKQRPDEW

FIGURE 855

CGACGCGGGAGCCGCACGCGCCGGACGAGGCTCGCTGCGCTCCCTGTTGCCCAGCGCGGGCCCGTTGAGGCGGAG
CCCTCAGTTCCCGGCCAGGACACGGTCTGGGCCGCCGAATCTCCGGCCGAAGAGCGGCGGCGGCAGCGGCGGGAA
AAAA**ATG**AAGAATGAAATTGCTGCCGTTGTCTTCTTTTTCACAAGGCTAGTTCGAAAACATGATAAGTTGAAAAA
AGAGGCAGTTGAGAGGTTTGCTGAGAAATTGACCCTAATACTTCAAGAAAAATATAAAAATCACTGGTATCCAGA
AAAACCATCGAAAGGACAGGCCTACAGATGTATTCGTGTCAATAAATTTCAGAGAGTTGATCCTGATGTCCTGAA
AGCCTGTGAAAACAGCTGCATCTTGTATAGTGACCTGGGCTTGCCAAAGGAGCTCACTCTCTGGGTGGACCCATG
TGAGGTGTGCTGTCGTAGAGATGGGGTTTCACCATGTTGGCCAGACTGCTCTCAAACTCCTGACCTCGTGATCCG
CCCGCCTTGGCCTCCCAAAGCGCTGGATTACAGGCGTGAGCCACTGCGCCCGGCCTCCTCCTTTTTGATTATGTA
TGGAGAGAAAAACAATGCATTCATTGTTGCCAGCTTTGAAAATAAAGATGAGAACAAGGATGAGATCTCCAGGAA
AGTTACCAGGGCCCTTGATAAGGTTACCTCTGATTATCATTCAGGATCCTCTTCTTCAGATGAAGAAACAAGTAA
GGAAATGGAAGTGAAACCCAGTTCGGTGACTGCAGCCGCAAGTCCTGTGTACCAGATTTCAGAACTTATATTTCC
ACCTCTTCCAATGTGGCACCCTTTGCCCAGAAAAAAGCCAGGAATGTATCGAGGGAATGGCCATCAGAATCACTA
TCCTCCTCCTGTTCCATTTGGTTATCCAAATCAGGGAAGAAAAAATAAACCATATCGCCCAATTCCAGTGACATG
GGTACCTCCTCCTGGAATGCATTGTGACCGGAATCACTGGATTAATCCTCACATGTTAGCACCTCAC**TAA**CTTCG
TTTTTGATTGTGTTGGTGTCATGTTGAGAAAAAGGTAGAATAAACCTTACTACACATTAAAAGTTAAAAGTTCTT
ACTAATAGTAGTGAAGTTAGATGGGCCAAACCATCAAACTTATTTTTATAGAAGTTATTGAGAATAATCTTTCTT
AAAAAATATATGCACTTTAGATATTGATATAGTTTGAGAAATTTTATTAAAGTTAGTCAAGTGCCTAAGTTTTTA
ATATTGGACTTGAGTATTTATATATTGTGCATCAACTCTGTTGGATACGAGAACCCTGTAGAAGTGGACGATTTG
TTTTAGCCCCTTTGAGAATTTACTTTATGGAGCGTATGTAAGTTATTTATATACAAGGAAATCTATTTTATGTCG
TTGTTTAAGAGAATTGTGTGAAATCATGTAGTTGCAAATAAAAAATAGTTTGAGGCAAAAAAAAAAAAAAAAAAA
AAAAAAAAAA

FIGURE 856

MKNEIAAVVFFFTRLVRKHDKLKKEAVERFAEKLTLILQEKYKNHWYPEKPSKGQAYRCIRVNKFQRVDPDVLKA
CENSCILYSDLGLPKELTLWVDPCEVCCRRDGVSPCWPDCSQTPDLVIRPPWPPKALDYRREPLRPASSFLIMYG
EKNNAFIVASFENKDENKDEISRKVTRALDKVTSDYHSGSSSSDEETSKEMEVKPSSVTAAASPVYQISELIFPP
LPMWHPLPRKKPGMYRGNGHQNHYPPPVPFGYPNQGRKNKPYRPIPVTWVPPPGMHCDRNHWINPHMLAPH

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FIGURE 857

AATTTGGGGCCAAGATTAACACCCCTCCTGCAGGAGGAAGACAGCCACCAGCGGCTGCTCATGGGGCTGATGGTG
TCTGAGCTAAAAGACCATTTTTTGAGACACCTACAGGGTGTAGAAAAGAAGAAAATTGAACAGATGGTTCTGGAC
TACATTTCAAAACTGCTGGATCTCATTTGCCACATCGTAGAAACCAATTGGAGGAAACATAATCTTCATTCCTGG
GTTCTCCACTTCAATAGTCGTGGCAGTGCTGCTGAATTTGCAGTTTTTCACATCATGACCAGGATTCTGGAAGCT
ACAAACAGTTTGTTTTTACCTCTGCCTCCTGGTTTTCATACTCTGCACACCATCCTCGGGGTCCAGTGTCTCCCT
TTGCATAACCTGCTGCATTGCATTGACAGTGGAGTGTTGCTTCTCACTGAAACAGCTGTCATAAGGCTCATGAAA
GATCTGGATAATACAGAGAAAAATGAAAAACTGAAATTCAGTATCATTGTGCGGCTTCCTCCGCTTATTGGGCAG
AAGATTTGTAGACTTTGGGATCATCCTATGAGTTCTAACATCATTTCGCGGAACCACGTGACGCGACTGCTTCAG
AACTATAAGAAACAGCCTCGGAATTCTATGATTAACAAGTCATCGTTCAGTGTAGAATTTCTGCCTCTGAACTAC
TTCATTGAAATTCTGACAGATATAGAGTCCTCCAATCAAGCCCTGTATCCTTTTGAAGGACATGACAATGTGGAT
GCAGAATTTGTAGAGGAAGCAGCTCTGAAACACACCGCGATGCTTTTAGGCTTA**TGA**AAAAGAAAACGCAATTGG
ATCTGCTGCTGCCATTTTAATCTTGCTCATTAACCTTACTCCTCTGAGAATTCTTTAACAATATTTAAAATTGGT
AACAAAAATAGTTTAGCCATAATTGTTTAGCCATGTGAGTTTCAGGTTGGTACACGTTCAGACAGAACTGCTGTA
TCACATTCCAATTTTGAATAGCCAGTGAGCAATCAAGTGTAGAGAAATGATAAATGGCCTAAGAAGGCATACAGT
GGCATAAACGATGCTCTTCCTAGTAGCTTAATAGGCCACAAGCTAGTTTCTGTTGCACTCTGAAATAAAATATGC
TTTAAAAATGTAGGGAACAGTGCTTAGAAAAGCAAAAACTAGGTGTGTCATTGAAATAATAGGCATAAAAATTAA
ATGTTACATAAGAACACTATTTGGAAAGAGGGTCCTTTTAAAAACTGAATTTGTACTAAATCAGATTTGCCATGT
CCCAGTCCAGAATAATTTGTACTTAGTATTTGCAGCAGGGTTTGTCTTTGTGAATTCAGATGAAACATATTTATT
TTTTTTTATTTATAAAAGGTTGATTTAGGAATATTTTGTCAGTCATTAAAAAACCTGAAAACATAAAAAAAAAAA
AAAAAAA

FIGURE 858

NLGPRLTPLLQEEDSHQRLLMGLMVSELKDHFLRHLQGVEKKKIEQMVLDYISKLLDLICHIVETNWRKHNLHSW
VLHFNSRGSAAEFAVFHIMTRILEATNSLFLPLPPGFHTLHTILGVQCLPLHNLLHCIDSGVLLLTETAVIRLMK
DLDNTEKNEKLKFSIIVRLPPLIGQKICRLWDHPMSSNIISRNHVTRLLQNYKKQPRNSMINKSSFSVEFLPLNY
FIEILTDIESSNQALYPFEGHDNVDAEFVEEAALKHTAMLLGL

FIGURE 859A

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GGCCGCGAGTGCATCTTCCACGAACCTAATTCATCTCTCCAGCAAAGGACACATCTCTCCAGCAAAGGACACCTC
TCTCCAGCAAAGGACACCTGCAGAGATGTCCCCAGTCCTTCACTTCTATGTTCGTCCCTCTGGCCATGAGGGGGC
AGCCTCTGGACACACTCGGAGGAAACTGCAAGGGAAACTGCCAGAGCTGCAGGGCGTCGAGACTGAACTGTGCTA
CAACGTGAACTGGACAGCTGAGGCCCTCCCCAGTGCTGAGGAGACAAAGAAGCTGATGTGGCTGTTTGGTTGCCC
CTTACTGCTGGATGATGTTGCTCGGGAGTCCTGGCTCCTTCCTGGCTCCAATGACCTGCTGCTGGAGGTCGGGCC
CAGGCTGAACTTCTCCACCCCAACATCCACCAACATCGTGTCAGTGTGCCGCGCCACTGGGCTGGGGCCTGTGGA
TCGTGTGGAGACCACCCGGCGCTACCGGCTCTCGTTTGCCCACCCCCCGTCAGCTGAGGTGGAAGCCATTGCTCT
GGCTACCCTGCACGACCGGATGACAGAGCAGCACTTCCCCCATCCCATCCAGAGTTTCTCCCCTGAGAGCATGCC
GGAACCCCTCAATGGCCCTATCAATATACTGGGTGAGGGCCGGCTTGCGCTGGAGAAGGCCAACCAGGAGCTTGG
TCTGGCTTTAGACTCTTGGGACCTAGACTTCTACACCAAGCGCTTCCAGGAGCTACAGCGGAACCCGAGCACTGT
GGAGGCCTTTGACTTGGCGCAGTCCAATAGCGAGCACAGCCGACACTGGTTCTTCAAGGGCCAGCTCCACGTGGA
TGGGCAGAAGCTGGTGCACTCACTGTTTGAGTCCATCATGAGCACCCAGGAATCCTCGAACCCCAACAACGTCCT
CAAATTCTGTGATAACAGCAGTGCAATCCAGGGAAAGGAAGTCCGATTCCTACGGCCTGAGGACCCCACACGGCC
AAGCCGCTTCCAGCAACAGCAAGGGCTGAGACATGTTGTCTTCACAGCAGAGACTCACAACTTTCCCACAGGAGT
ATGCCCCTTTAGTGGTGCAACCACTGGCACAGGGGGCCGGATTCGAGATGTCCAGTGCACAGGCCGCGGGGCCCA
CGTGGTGGCTGGCACTGCCGGCTATTGCTTTGGAAATCTGCATATTCCAGGTTACAATCTGCCCTGGGAGGATCT
AAGCTTCCAGTATCCTGGGAATTTTGCCCGGCCCCTGGAGGTTGCCATTGAAGCCAGTAATGGAGCTTCTGACTA
TGGCAACAAGTTTGGGGAACCAGTGCTGGCTGGCTTCGCCCGCTCCTTGGGCCTCCAGCTCCCAGACGGCCAGCG
GCGTGAGTGGATCAAGCCCATCATGTTTAGTGGGGGCATTGGGTCCATGGAAGCTGACCACATAAGCAAGGAGGC
CCCAGAGCCAGGCATGGAAGTTGTAAAGGTTGGAGGTCCCGTCTACAGGATTGGAGTTGGAGGTGGAGCTGCTTC
ATCTGTGCAGGTGCAGGGAGATAACACCAGTGACCTGGACTTTGGGGCTGTGCAGCGAGGAGACCCGGAGATGGA
ACAGAAGATGAACCGTGTGATCAGGGCTTGTGTGGAGGCCCCCAAGGGAAACCCCATCTGCAGCCTTCATGATCA
GGGCGCTGGTGGCAATGGCAATGTCCTAAAAGAGCTGAGTGACCCAGCTGGAGCCATCATTTACACCAGCCGCTT
CCAGCTTGGGGACCCAACCCTGAATGCCCTGGAAATCTGGGGGGCTGAGTACCAGGAATCAAATGCTCTTCTGCT
GAGGTCCCCCAACCGGGACTTCCTGACTCATGTCAGTGCCCGTGAACGTTGCCCGGCTTGCTTCGTGGGCACCAT
CACTGGAGACCGGAGAATAGTGCTGGTGGACGATCGGGAGTGTCCTGTCAGAAGAAATGGCCAGGGGGATGCCCC
CCCGACACCCCCGCCAACCCCTGTGGACCTGGAGCTCGAATGGGTGCTGGGCAAGATGCCTCGGAAGGAGTTCTT
CCTGCAGAGGAAGCCCCCCATGCTGCAGCCTCTGGCCTTGCCCCCAGGGCTGAGCGTGCACCAGGCTCTGGAGAG
GGTTCTGAGGCTGCCCGCCGTGGCCAGCAAGCGCTACCTCACCAATAAGGTGGACCGCTCCGTGGGAGGCCTGGT
GGCCCAGCAGCAGTGCGTGGGGCCCCTGCAAACTCCTCTGGCAGATGTAGCGGTTGTGGCACTGAGCCATGAGGA
GCTCATAGGGGCTGCCACAGCCTTGGGAGAACAGCCAGTCAAGAGCCTGCTGGACCCAAAAGTCGCCGCCCGGCT
GGCCGTGGCCGAAGCCCTCACCAACCTGGTGTTTGCTCTGGTCACTGACCTCCGGGATGTGAAGTGTAGCGGGAA
CTGGATGTGGGCAGCCAAGCTCCCAGGGGAGGGCGCAGCTTTGGCGGATGCCTGTGAGGCTATGGTGGCAGTGAT
GGCAGCCCTGGGTGTGGCAGTGGATGGTGGCAAGGACTCCCTCAGCATGGCTGCTCGGGTTGGCACTGAGACCGT
GCGGGCTCCTGGGTCACTGGTCATCTCAGCCTATGCCGTCTGCCCAGACATCACAGCCACTGTGACCCCAGACCT
CAAGCATCCTGAAGGGAGAGGCCATCTGCTCTATGTGGCTCTGAGCCCTGGGCAGCACCGGCTCGGGGGCACAGC
TCTGGCCCAGTGCTTCTCCCAGCTTGGGGAACACCCTCCAGACCTGGACCTTCCTGAGAACTTGGTGCGGGCCTT
CAGCATCACTCAGGGGCTGCTGAAAGACCGCCTCCTCTGCTCAGGCACGATGTCAGTGACGGAGGCCTCGTCAC
ATGCCTGCTGGAGATGGCCTTTGCTGGAAATTGCGGGCTACAGGTGGATGTGCCTGTCCCCAGGGTTGATGTCCT
GTCTGTGCTGTTCGCTGAGGAGCCAGGCCTCGTGCTGGAGGTGCAGGAGCCAGACCTGGCCCAGGTGCTGAAGCG
TTACCGGGATGCTGGCCTCCATTGCCTGGAGCTGGGCCACACAGGCGAGGCCGGGCCCCACGCCATGGTCCGGGT
GTCAGTGAACGGGGCTGTGGTTCTGGAGGAGCCTGTTGGGGAGCTGCGAGCCCTCTGGGAGGAGACGAGTTTCCA
GCTGGACCGGCTACAGGCAGAGCCTCGCTGTGTGGCAGAGGAGGAACGGGGCCTGAGGGAGCGGATGGGGCCCAG
CTATTGCCTGCCCCCCACCTTTCCCAAAGCCTCCGTGCCCCGTGAGCCTGGTGGTCCCAGCCCCCGAGTCGCCAT
CTTGCGAGAGGAGGGCAGTAATGGAGACCGGGAGATGGCCGATGCCTTCCACTTAGCTGGGTTTGAGGTATGGGA
CGTGACCATGCAGGACCTCTGCTCTGGGGCAATTGGGCTGGACACTTTCCGTGGCGTGGCCTTCGTGGGCGGCTT
CAGCTATGCAGATGTCCTGGGCTCTGCCAAAGGGTGGGCAGCTGCTGTGACCTTTCATCCCAGGGCTGGGGCTGA
GCTGAGGCGCTTCCGGAAGCGGCCAGACACCTTCAGCCTGGGCGTGTGTAATGGCTGTCAACTGCTGGCTCTGCT
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FIGURE 859B

CGGCTGGGTGGGAGGCGACCCCAATGAGGATGCTGCAGAGATGGGCCCTGACTCCCAGCCAGCCCGGCCAGGCCT
TCTGCTACGCCACAACCTGTCTGGGCGCTACGAGTCTCGCTGGGCCAGCGTGCGTGTGGGGCCTGGGCCAGCCCT
GATGCTGCGAGGGATGGAGGGCGCCGTGCTGCCCGTGTGGAGTGCGCACGGGGAAGGTTACGTAGCATTTTCTTC
TCCGGAACTCCAAGCTCAGATTGAGGCCAGGGGCTTGGCTCCACTGCACTGGGCTGATGATGACGGGAACCCCAC
AGAGCAGTACCCTCTGAATCCCAATGGGTCCCCAGGGGGCGTGGCTGGCATCTGCTCCTGTGATGGCCGCCACCT
GGCTGTCATGCCTCACCCTGAGCGGGCCGTTAGGCCTTGGCAGTGGGCATGGCGACCCCCTCCATTTGATACTCT
GACCACCTCCCCCTGGCTCCAGCTCTCTATCAATGCCCGAAACTGGACCCTGGAAGGGAGCTGC**TGA**CTGGCCAC
AGGGGCTCACCTGGGCCCCATGGCTTTTCACCTAAGTGGGTCCTGCCCCCTCCCCCATGACCTTCAGGAGCACCC
CATATTATTTCCAAAAATATCTTGGACAGACAAGGACCAAAATGCCAAAATCTCAGCGGACTCGATGATCTGCCT
GCTGATGTTCCTTCTGTGGCTGTGTCTATTTTCAGTTCTGCTCTAACATGGCATGCCCTTTCTCAGCCCAGGAAA
CAGCATGTGGTTCAGAGAAAAGAGCGACAAGGAAAAGTTAGGACTCCTGAGGTCCGAACAGGGGCTTCTGTTGCC
CACTTCACAACACCCAGTGATCACCGGTGTGCAATTGCCTCCTTGGCTCTGAGGGATGTTTTGCGCTCCCTTTTC
TCATCATTGGGGTTAGCGGGTGCAGACAAATTCAGCAATAGTATGCAGATCAGCCCCTCACCACCTCATTGTTCT
CATCTGGAACTGAAACTTTCTGGATTTCTCTTGAAGTGCTACACTGCACTGAATGTAAGGAATTGTTGCTTGTGG
AAGTTTCTCAGCGTTTCTGGCTGTCTTAGGGCTGGCCTCAGAACCCAGCATTCCTGTTATTTGCTTCTAAATTAG
CAGCTCTCTTTTTTTTTTTTTTTTGAGGCAGTCTCACTCTGTCACCCAGGCTGGAGTGCAGTGGCGTGATCTCG
GCCCACTGCAACCTCTGCCTCCTGGGTTCAAGCAATTTTCCTGCCTCAGCCTCCCGAGTAGCTGGGAGTACAGGC
ACACACCACCACACCCAGCTAATTTTTGTATTTTTAGTAGAGATAGGGTTTCACCGTGTCTCCCAGGCTGGTCTC
AAACTCCTAACCTCAAGTGATTCGCCTGCCTCGGCCTCCCAAAGTGCTGGGATTACAGGTGGGAGCCACTACAGC
TGGCCCAGCAGCTCTGTTTCTGATAGAGGTGGTTGGGGCTCTCATCCCTAGATCCTAACCCTTTAGTATGCTGGA
ATTCTACTCTTCACTTACTGCATTGACTGTTGTTGATTAGTTATTATTGCAAAGCACTGCCACCGGCCTCAGGGA
GTTTATGTGTAATAGAATTAAAAATAATAGCTGTGTATAACACTTAGCTCAAGCCACGCATGTGTGAGGCATTTG
GTATGTATCTGAATTAATTCTCACTAAAATTCAGCAAAGGACTTGATAGCCTCTCCCCGCCTTTTCAATAAAGGA
TGAATGAAGGTTG

FIGURE 860

AASASSTNLIHLSSKGHISPAKDTSLQQRTPAEMSPVLHFYVRPSGHEGAASGHTRRKLQGKLPELQGVETELCY
NVNWTAEALPSAEETKKLMWLFGCPLLLDDVARESWLLPGSNDLLLEVGPRLNFSTPTSTNIVSVCRATGLGPVD
RVETTRRYRLSFAHPPSAEVEAIALATLHDRMTEQHFPHPIQSFSPESMPEPLNGPINILGEGRLALEKANQELG
LALDSWDLDFYTKRFQELQRNPSTVEAFDLAQSNSEHSRHWFFKGQLHVDGQKLVHSLFESIMSTQESSNPNNVL
KFCDNSSAIQGKEVRFLRPEDPTRPSRFQQQQGLRHVVFTAETHNFPTGVCPFSGATTGTGGRIRDVQCTGRGAH
VVAGTAGYCFGNLHIPGYNLPWEDLSFQYPGNFARPLEVAIEASNGASDYGNKFGEPVLAGFARSLGLQLPDGQR
REWIKPIMFSGGIGSMEADHISKEAPEPGMEVVKVGGPVYRIGVGGGAASSVQVQGDNTSDLDFGAVQRGDPEME
QKMNRVIRACVEAPKGNPICSLHDQGAGGNGNVLKELSDPAGAIIYTSRFQLGDPTLNALEIWGAEYQESNALLL
RSPNRDFLTHVSARERCPACFVGTITGDRRIVLVDDRECPVRRNGQGDAPPTPPPTPVDLELEWVLGKMPRKEFF
LQRKPPMLQPLALPPGLSVHQALERVLRLPAVASKRYLTNKVDRSVGGLVAQQQCVGPLQTPLADVAVVALSHEE
LIGAATALGEQPVKSLLDPKVAARLAVAEALTNLVFALVTDLRDVKCSGNWMWAAKLPGEGAALADACEAMVAVM
AALGVAVDGGKDSLSMAARVGTETVRAPGSLVISAYAVCPDITATVTPDLKHPEGRGHLLYVALSPGQHRLGGTA
LAQCFSQLGEHPPDLDLPENLVRAFSITQGLLKDRLLCSGHDVSDGGLVTCLLEMAFAGNCGLQVDVPVPRVDVL
SVLFAEEPGLVLEVQEPDLAQVLKRYRDAGLHCLELGHTGEAGPHAMVRVSVNGAVVLEEPVGELRALWEETSFQ
LDRLQAEPRCVAEEERGLRERMGPSYCLPPTFPKASVPREPGGPSPRVAILREEGSNGDREMADAFHLAGFEVWD
VTMQDLCSGAIGLDTFRGVAFVGGFSYADVLGSAKGWAAAVTFHPRAGAELRRFRKRPDTFSLGVCNGCQLLALL
GWVGGDPNEDAAEMGPDSQPARPGLLLRHNLSGRYESRWASVRVGPGPALMLRGMEGAVLPVWSAHGEGYVAFSS
PELQAQIEARGLAPLHWADDDGNPTEQYPLNPNGSPGGVAGICSCDGRHLAVMPHPERAVRPWQWAWRPPPFDTL
TTSPWLQLSINARNWTLEGSC

FIGURE 861A

CTGCGGCCGCCTGGTTTCTTGCCTTAAGGAGCCCATTGCCTTTCCCGCTGAAGTCTAGATGTTGACATGTAATAA
AGCGGGCAGCAGG**ATG**GTGGTGGATGCGGCCAACTCCAATGGGCCTTTCCAGCCCGTGGTCCTTCTCCATATTCG
AGATGTTCCTCCTGCTGATCAAGAGAAGCTTTTTATCCAGAAGTTACGTCAGTGTTGCGTCCTCTTTGACTTTGT
TTCTGATCCACTAAGTGACCTAAAGTGGAAGGAAGTAAAACGAGCTGCTTTAAGTGAAATGGTAGAATATATCAC
CCATAATCGGAATGTGATCACAGAGCCTATTTACCCAGAAGTAGTCCATATGTTTGCAGTTAACATGTTTCGAAC
ATTACCACCTTCCTCCAATCCTACGGGAGCGGAATTTGACCCGGAGGAAGATGAACCAACGTTAGAAGCAGCCTG
GCCTCATCTACAGCTTGTTTATGAATTTTTCTTAAGATTTTTAGAGTCTCCAGATTTCCAACCTAATATAGCGAA
GAAATATATTGATCAGAAGTTTGTATTGCAGCTTTTAGAGCTCTTTGACAGTGAAGATCCTCGGGAGAGAGATTT
TCTTAAAACCACCCTTCACAGAATCTATGGGAAATTCCTAGGCTTGAGAGCTTACATCAGAAACAGATAAATAA
TATATTTTATAGGTTTATTTATGAAACAGAGCATCATAATGGCATAGCAGAGTTACTGGAAATATTGGGAAGTAT
AATTAATGGATTTGCCTTACCACTAAAAGAAGAGCACAAGATTTTCTTATTGAAGGTGTTACTACCTTTGCACAA
AGTGAAATCTCTGAGTGTCTACCATCCCCAGCTGGCATACTGTGTAGTGCAGTTTTTAGAAAAGGACAGCACCCT
CACGGAACCAGTGGTGATGGCACTTCTCAAATACTGGCCAAAGACTCACAGTCCAAAAGAAGTAATGTTCTTAAA
CGAATTAGAAGAGATTTTAGATGTCATTGAACCATCAGAATTTGTGAAGATCATGGAACCCCTCTTCCGGCAGTT
GGCCAAATGTGTCTCCAGCCCACACTTCCAGGTGGCAGAGCGAGCTCTCTATTACTGGAATAATGAATACATCAT
GAGTTTAATCAGTGACAACGCAGCGAAGATTCTGCCCATCATGTTTCCTTCCTTGTACCGCAACTCAAAGACCCA
TTGGAACAAGACAATACATGGCTTGATATACAACGCCCTGAAGCTCTTCATGGAGATGAACCAAAAGCTATTTGA
TGACTGTACACAACAGTTCAAAGCAGAGAAACTAAAAGAGAAGCTAAAAATGAAAGAACGGGAAGAAGCATGGGT
TAAAAATAGAAAATCTAGCCAAAGCCAATCCCCAGTACACAGTGTATAGTCAAGCCAGCACCATGAGCATTCCGGT
TGCAATGGAGACAGATGGGCCTTTATTTGAAGATGTGCAGATGCTGAGAAAGACAGTGAAGGACGAGGCTCATCA
GGCACAGAAAGATCCGAAGAAGGACCGTCCTCTTGCACTCCGCAAGTCCGAGCTGCCTCAGGACCCCCACACCAA
GAAAGCCTTGGAAGCTCACTGCAGGGCCGATGAGCTGGCCTCCCAGGACGGCCGC**TAG**CCTCCGGGGCGCCGCGT
CGGGGGCCGGGCCCGCCAGTTCTTTTCCGGATTCTGTAGAAAATACATACTTCCTGTGCCATACCAATCAGTTACA
CTCAAAGCTTTCTTGGACCCCGTTCCGTAGGCAATAACGTGCGTCCGCCTCAGCGCGAGATTAGGAGTTCAAACA
ATGGTGACTTCCCAGAGCCCGCTGGCAGAGCCGCGGGTTGACGACGGTGTCCTCGCAGTGTCGCCGCCACCCCAG
CGTAGTCCAAGTCAGACTATTTCACAAAGTCAGAGCGATAGGAAAGCACCCTGCCCTTCATCTTCATGTTCTCCC
AAATGGAACTTAGGATCTTTTAACATAGGTGGTTCTGTGATAACATCAGTGTTTTCCAAATCAAAGGAACGCTTT
AAAAAATAGGACCTATTTTTTAAGACTTTACAGCCTTTGAAATGGTTTCCACGTGATTGTTACGCCAGCAGTTCT
TTTGTTTGTTTTTCAATCTCAGTGAAATGGCTCTTTGCTTTCGAGTTCTCACGCAACGTACTGGGCAAATGACAA
TCCTCAGCCGCTGGTATTTTCTAAGGGGTCTCTTCACTTTGATGAGTGACATGAACACCGTGTCTCCTTCTCTTG
TGTGTACCTAAAGCCATATTTCCAAGTCTGTGGTACTCCAGGATTCCAGGAGTAAGCCTGTAGAAGAGATTTATT
TTAAAAGAGATTGCTCTGAAATTTATCTTAAAAGAGCTTGCTCTGTCTACCTTGACAGAAATTGGAGTTTTAAAA
TTATGTGTTAATATTTTTATTTGCAGATTTCGTTTCCGTCAACTTAAACATTGTTGCCCTTCAACAAGGCTCTTG
AATTAATAAAATTATAGTCTCTAAGAATTCCACATTTTATGGAAAGTTAGAGCAAAATCATTTTGAGTTAAGCCA
GTTCTTAGCCTAATGCAAACTGCAGCGCCTTTAAGCATAAAGTAACACAACAGCATTGCACGGGGCCGGCACTGC
CGCTGCCTTCACTGAAGGCTGCAGTGCTGTTCTGAGAGCTTGGAGGAGGCACCAGCGAGGATGACGTTAGTGGA
GCTCTTTCTGTTGAAAAGAGCTCACGTTATCAACACCTTGTAAGGAAATACAGTGTCTGAGTTTTCATCGGTCT
TCACATGCTGCTATATATTCCACAGAGTTCCTTGCATGTACTGAGCTTTTGTTTTAGATGGAATAGCACAAGGAG
AAAAATCTTTAAACTTAGTGCTTTGTCTATTCTTTATTTCTCTCAGGGTGGCCAGTATTTTGACTTATTTATCCT
GCTTGAAAGCTACTTGAGATGTGTACTGCTATTCTAAACACGTGATCTAGTTTCTTTCATCTCTGGCATAAGATT
ATATAACTTAATGTTAAGTGTCTTGAGGCATAAAAGACAAATGTGGCTTATTTTAGGATCTGTTTTTTCATCGA
GGTCTCGGGTATCCTTTCAAAGATAGTGAGAAGCAGACACTGCTCCTTGTGCAGCTCTGGTACCTCCTGCCCACT
GCTGTCACTTCAAGCCACTGGCAATGCTTCTGTCCTCGTGTCTTGGAGGAAATCACCTGGGGGGAGGGGACTTC
TTGTGGTAAGAGCAAGTGCAGGTATGAAATGCGAAGATTGCCCCAGCTAAAAGTGGACAAGTCCGCTTTGTGAGA
TGAATACTTCCTGAGAAACTTGACAAGTATCTCTCCATTTTACCATTATGAAAACTATCATTAAAAAAAACAGTT
TAGATGCCTTCTCCTTTTGAGGGAAAAAGGGTGCTTTTTATTGTATAAAGCAGCGTCTTATGTATTTTGATATAC
CATTGTTTGAACTTCCGTCTTTAGCTGATAGATTCTCAAATATCCTTGATTTTGGATGTTCAGTATGTTTGTGAG
AGAGGTTTCTGGGAAGACTCTCTTTTTGCCCTCGGGAAAAAGCAAAATATCAATGTTTGGGTGACTGTGTAAAGC

FIGURE 861B

TCAGTGTGTAAGAACATCTTTTTGTCTAGGTTTTCTTTCTGCTCTTTATTGAAGACAAACACTCACCAAAAAGAA
AAATAAAAGTTTTCAGAGAAACTAATTTTCTTTGGCAAGAGTATTACTTAATATTTTGGCCTCCTAAAGTTTCCC
TAGTTAGTACTCGGACTCCTGTGCTAATTGTCAGCTTACATATCATTGTATAGAGACTGTTTATTCTGTACCAAA
CTGATTTCAAAAGTACTACATTGAAAATAAACCGGTGACTGTTTTTCTTCATAAAGTTCTGCGTTTGGCATCTTC
ACTCTTTCCAAAATGTATCTGTACATCAGAAATGTCACTATTCCAAGTGTCTTTTTAGTGTGGCCTTTAGTATGG
CTTCCTTTTAATATTGTACATACATTGTATCTTTGTTTTATGGTAATAAGTAATAAAAATGTAGACTTCAAAAAA
AAAAGCGGCCGCAG

FIGURE 862

MVVDAANSNGPFQPVVLLHIRDVPPADQEKLFIQKLRQCCVLFDFVSDPLSDLKWKEVKRAALSEMVEYITHNRN
VITEPIYPEVVHMFAVNMFRTLPPSSNPTGAEFDPEEDEPTLEAAWPHLQLVYEFFLRFLESPDFQPNIAKKYID
QKFVLQLLELFDSEDPRERDFLKTTLHRIYGKFLGLRAYIRKQINNIFYRFIYETEHHNGIAELLEILGSIINGF
ALPLKEEHKIFLLKVLLPLHKVKSLSVYHPQLAYCVVQFLEKDSTLTEPVVMALLKYWPKTHSPKEVMFLNELEE
ILDVIEPSEFVKIMEPLFRQLAKCVSSPHFQVAERALYYWNNEYIMSLISDNAAKILPIMFPSLYRNSKTHWNKT
IHGLIYNALKLFMEMNQKLFDDCTQQFKAEKLKEKLKMKEREEAWVKIENLAKANPQYTVYSQASTMSIPVAMET
DGPLFEDVQMLRKTVKDEAHQAQKDPKKDRPLALRKSELPQDPHTKKALEAHCRADELASQDGR

FIGURE 863

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TTAATGGTAGGAATTTGTATTTTTTGCCTTTGTTCAGAATACATGACATTGGTAAATATGCCACATGCCTTTGGT
GGAAGTACAACTGTTGTTATTACTCTATACAAGTATGAGATCAGGGTTAGGAAAAAAAGACAAAGAGGTGATGAC
AGACACACAGTGGAAACCCCACATCGTCTCATGGCAAACCGAAGAACGGGATGTGGGAAGCTCAGCTTCATTTGA
CTGCAAAGTCCCAGGGTTTTGTTGCACATTTGCTCATGCACATGGGTGGTGGGAGGAAAGGGGGATAGCAGAGAC
ACACAGAAGAGGGTACAGGGTGGGTGAGAAAGAAAGTAGAAGGGCTAATACCCCCAAAGAACAAGGCCAACTACA
CCTGGTGAGCCTCAGAGGGACAGAAACCCAGGAATGATTCCT
```

FIGURE 864A

CGAATTCCCCCCTCCCCTCCCCATAACATGCCCACTGCCCCAAATAAAAAAAAAACCAACTATGGGAGAGCAGCC
GAGACAGCAACTAGGGGCAGGGGAAAGAGACATGGAACTCGAGGGCAGCGGTGAAGAGACCATGCGTGTGCTGGG
AGGGCCCAGAGGCAGCGGCGGCACAAACAGCGCAGGTACGAGTCTCTGTGTCTTCCCCGGGGTTATGTATAAATA
TAGAGAGATGAGGCCTTCTCTCCCCTGCTCTCCCTTCCGCTCCGTGCTGCTCGCCGCGGTCCCAGCTCCTCTTTC
CACATGAGGGCGAAGGGAAGGGGGGATGAACAAGTCATCACCGAATTGCAATCAGACCCACATCCATCAGCTTCT
GGATCTTCTGTGCTATTACAGGATTCTTTAAGTGTTCGCTGAGTGCCTGCTCCTGGGGACAATTCCCTTTTCCTT
TCTTCAGCCTAACCCGCGGTGGCCCTCGCGGAGTCCGGTCAGCCCCGGGGAGCGCAACCCGGGAGGGGCGTCCAA
GGGGCGTCTCGCGTCTGGGAACGGCCGGGCCCCAGCGGGCTGTGGTCGCGGGGTGGGGGCCGGAGCGGCGAGGC
CCCCCTTACCGGGCTGCGCAGGCCGCCCAGGGCCCCGGGCTGAGACGGGGCCGGAGCGGCGCCCCGGCCGCCCG
CGCGGGGTCTCCCCCATGGTGCAGCGGGGTTCGGG**ATG**TCGAAGACGCTGAAGAAGAAGAAGCACTGGCTCAGCA
AGGTGCAGGAGTGCGCCGTGTCCTGGGCCGGGCCCCGGGCGACTTCGGCGCGGAGATCCGCGGTGGCGCGGAGC
GTGGCGAATTCCCCTACCTGGGGCGGCTCCGCGAAGAACCCGGCGGGGGCACCTGCTGCATCGTCTCGGGCAAGG
CGCCCAACCCAAGCGATGTGCTGCTGGAGGTAAACGGGACGCCTGTCAGCGGGCTCACCAACCGGGACACCCTGG
CTGTCATCCGCCACTTCCGCGAGCCCATCCGTCTCAAGACTGTGAAACCAGGCAAAGTCATTAATAAAGATTTGC
GGCATTACCTAAGTCTTCAGTTTCAAAAAGGATCAATTGACCACAAACTGCAGCAAGTGATCAGAGATAATCTCT
ACTTGAGAACCATTCCATGCACTACAAGGGCCCCCAGGGATGGAGAAGTACCAGGAGTGGATTATAATTTCATTT
CCGTTGAACAGTTCAAAGCACTGGAGGAGAGTGGAGCATTGTTAGAAAGTGGGACATATGATGGAAACTTCTATG
GAACTCCCAAGCCTCCAGCAGAACCCAGCCCTTTTCAGCCAGATCCAGTTGATCAAGTCCTCTTTGATAATGAGT
TTGATGCAGAATCTCAAAGAAAACGAACGACATCTGTCAGCAAGATGGAAAGAATGGATAGCTCTCTTCCTGAAG
AGGAAGAAGATGAGGACAAGGGAGCTATTAATGGCAGTGGAAACGCAGAAAACAGAGAGAGGCATTCTGAGTCAT
CTGACTGGATGAAGACTGTTCCAAGTTACAACCAAACAAATAGCTCCATGGACTTTAGAAATTATATGATGAGAG
ATGAGACTCTGGAACCACTGCCCAAAAACTGGGAAATGGCCTACACTGACACAGGGATGATCTACTTCATTGACC
ACAATACCAAGACAACCACTTGGTTGGATCCTCGTCTTTGTAAGAAAGCCAAAGCCCCTGAAGACTGTGAAGATG
GAGAGCTTCCTTATGGCTGGGAGAAAATAGAGGACCCTCAGTATGGGACATACTATGTTGATTTCACTCTTGTCG
CCCAAGCTGGAGTGCAATGGCATGATCTCGGCTCACTGCAACCTCCGCCTCCTGGGTTCAATCACCTTAACCAGA
AAACCCAGTTTGAAAATCCAGTGGAGGAAGCCAAAAGGAAAAAGCAGTTAGGACAGGTTGAAATTGGGTCTTCAA
AACCAGATATGGAAAAATCACACTTCACAAGAGATCCATCCCAGCTTAAAGGTGTCCTTGTTCGAGCATCACTGA
AAAAAAGCACAATGGGATTTGGTTTTACTATTATTGGTGGAGATAGACCTGATGAGTTCCTACAAGTGAAAAATG
TGCTGAAAGATGGTCCCGCAGCTCAGGATGGGAAAATTGCACCAGGCGATGTTATTGTAGACATCAATGGCAACT
GTGTCTTCGGTCACACTCATGCAGATGTTGTCCAGATGTTTCAATTGGTACCTGTCAATCAGTATGTAAACCTCA
CTTTATGTCGTGGTTATCCACTTCCTGATGACAGTGAAGATCCTGTTGTGGACATTGTTGCTGCTACCCCTGTCA
TCAATGGACAGTCATTAACCAAGGGAGAGACTTGCATGAATCCTCAGGATTTTAAGCCAGGAGCAATGGTTCTGG
AGCAGAATGGAAAATCGGGACACACTTCGACTGGTGATGGTCTCAATGGACCATCAGATGCAAGTGAGCAGAGAG
TATCCATGGCATCGTCAGGCAGCTCCCAGCCTGAACTAGTGACTATCCCTTTGATTAAGGGCCCTAAAGGGTTTG
GGTTTGCAATTGCTGACAGCCCTACTGGACAGAAGGTGAAAATGATACTGGATAGTCAGTGGTGTCAAGGCCTTC
AGAAAGAAGATATAATTAAGGAAATATACCATCAAAATGTGCAGAATTTAACACATCTCCAAGTGGTAGAGGTGC
TAAAGCAGTTTCCAGTAGGTGCTGATGTACCATTGCTTATCTTAAGAGGAGGTCCTCCTTCAACAACCAAAACTG
CCAAAATGAAAACAGATAAAAAGGAAAATGCAGGAAGTTTGGAGGCCATAAATGAGCCTATTCCTCAGCCTATGC
CTTTTCCACCGAGCATTATCAGGTCAGGATCCCCAAAATTGGATCCTTCTGAGGTCTACCTGAAATCTAAGACTT
TATATGAAGATAAACCACCAAACACCAAAGATTTGGATGTTTTTCTTCGAAAACAAGAGTCAGGGTTTGGCTTCA
GGGTGCTAGGAGGAGATGGACCTGACCAGTCTATATATATTGGGGCTATTATTCCCCTGGGAGCAGCTGAGAAAG
ATGGTCGGCTCCGCGCAGCTGATGAACTAATGTGCATTGATGGAATTCCTGTTAAAGGGAAATCACACAAACAAG
TCTTGGACCTCATGACAACTGCTGCTCGAAATGGCCATGTGTTACTAACTGTCAGACGGAAGATCTTCTATGGAG
AAAAACAACCCGAGGACGACAGCTCTCAGGCCTTCATTTCAACACAGAATGGATCTCCCCGCCTGAACCGGGCAG
AGGTCCCAGCCAGGCCTGCACCCCAGGAGCCCTATGATGTTGTCTTGCAACGAAAGAAAATGAAGGATTTGGCT
TTGTCATCCTCACCTCCAAAAACAAACCACCTCCAGGAGTTATTCCTCATAAAATTGGCCGAGTCATAGAAGGAA
GTCCGGCTGACCGCTGTGGAAAACTGAAAGTTGGAGATCATATCTCTGCAGTGAATGGGCAGTCCATTGTTGAAC
TGTCTCATGCTAACATTGTTCAGCTGATCAAAGATGCTGGTGTCACCGTCACACTAACGGTCATTGCTGAAGAAG

FIGURE 864B

AGCATCATGGTCCACCATCAGGAACAAACTCAGCCAGGCAAAGCCCAGCCCTGCAGCACAGGCCCATGGGACAGT
CACAGGCCAACCACATACCTGGGGACAGAAGTGCCCTAGAAGGTGAAATTGGAAAAGATGTCTCCACTTCTTACA
GACATTCTTGGTCAGACCACAAGCACCTTGCACAGCCTGACACCGCAGTAATTTCAGTTGTAGGCAGTCGGCACA
ATCAGAACCTTGGTTGTTATCCAGTAGAGCTGGAGAGAGGCCCCCGGGGCTTTGGATTCAGCCTCCGAGGGGGGA
AGGAGTACAACATGGGGCTGTTCATCCTTCGTCTTGCTGAAGATGGTCCTGCCATCAAAGATGGCAGAATTCATG
TTGGTGACCAAATTGTTGAAATCAATGGGGAACCTACACAAGGAATCACACATACTCGAGCAATTGAGCTCATTC
AGGCTGGTGGAAATAAAGTTCTTCTTCTTTTGAGGCCAGGAACTGGCTTGATACCTGACCATGGTTTGGCTCCTT
CCGGTCTGTGCTCCTACGTGAAACCCGAGCAACAT**TAA**GGCTTTCAGGGCTTTTCTTGGTCTTTCCTTAAAAAGA
CTTGGTAAATTTGCATGTCTTGTAAATCACTTTCTTCTTTTGTTTTCTTTTAAATTAAAAATGATGCTATTAAAT
AAAAAAAAAAAA

FIGURE 865

MSKTLKKKKHWLSKVQECAVSWAGPPGDFGAEIRGGAERGEFPYLGRLREEPGGGTCCIVSGKAPNPSDVLLEVN
GTPVSGLTNRDTLAVIRHFREPIRLKTVKPGKVINKDLRHYLSLQFQKGSIDHKLQQVIRDNLYLRTIPCTTRAP
RDGEVPGVDYNFISVEQFKALEESGALLESGTYDGNFYGTPKPPAEPSPFQPDPVDQVLFDNEFDAESQRKRTTS
VSKMERMDSSLPEEEEDEDKGAINGSGNAENRERHSESSDWMKTVPSYNQTNSSMDFRNYMMRDETLEPLPKNWE
MAYTDTGMIYFIDHNTKTTTWLDPRLCKKAKAPEDCEDGELPYGWEKIEDPQYGTYYVDFTLVAQAGVQWHDLGS
LQPPPPGFNHLNQKTQFENPVEEAKRKKQLGQVEIGSSKPDMEKSHFTRDPSQLKGVLVRASLKKSTMGFGFTII
GGDRPDEFLQVKNVLKDGPAAQDGKIAPGDVIVDINGNCVFGHTHADVVQMFQLVPVNQYVNLTLCRGYPLPDDS
EDPVVDIVAATPVINGQSLTKGETCMNPQDFKPGAMVLEQNGKSGHTSTGDGLNGPSDASEQRVSMASSGSSQPE
LVTIPLIKGPKGFGFAIADSPTGQKVKMILDSQWCQGLQKEDIIKEIYHQNVQNLTHLQVVEVLKQFPVGADVPL
LILRGGPPSTTKTAKMKTDKKENAGSLEAINEPIPQPMPFPPSIIRSGSPKLDPSEVYLKSKTLYEDKPPNTKDL
DVFLRKQESGFGFRVLGGDGPDQSIYIGAIIPLGAAEKDGRLRAADELMCIDGIPVKGKSHKQVLDLMTTAARNG
HVLLTVRRKIFYGEKQPEDDSSQAFISTQNGSPRLNRAEVPARPAPQEPYDVVLQRKENEGFGFVILTSKNKPPP
GVIPHKIGRVIEGSPADRCGKLKVGDHISAVNGQSIVELSHANIVQLIKDAGVTVTLTVIAEEEHHGPPSGTNSA
RQSPALQHRPMGQSQANHIPGDRSALEGEIGKDVSTSYRHSWSDHKHLAQPDTAVISVVGSRHNQNLGCYPVELE
RGPRGFGFSLRGGKEYNMGLFILRLAEDGPAIKDGRIHVGDQIVEINGEPTQGITHTRAIELIQAGGNKVLLLLR
PGTGLIPDHGLAPSGLCSYVKPEQH

FIGURE 866

CCCTTCCGTCCTTCATTAGACGTTTGCTCTTGTCTTAGATGCTCAGATGGTAGTGGATAGGCCTGTGACGAAGGT
GCTACCATCGTGAGAGTAAGATTATATTCTCCTGCCTTTTAAAAAGATGGACTTCAGCAGAAATCTTTATGATAT
TGGGGAACAACTGGACAGTGAAGATCTGGCCTCCCTCAAGTTCCTGAGCCTGGACTACATTCCGCAAAGGAAGCA
AGAACCCATCAAGGATGCCTTGATGTTATTCCAGAGACTCCAGGAAAAGAGAATGTTGGAGGAAAGCAATCTGTC
CTTCCTGAAGGAGCTGCTCTTCCGAATTAATAGACTGGATTTGCTGATTACCTACCTAAACACTAGAAAGGAGGA
GATGGAAAGGGAACTTCAGACACCAGGCAGGGCTCAAATTTCTGCCTACAGGGTCATGCTCTATCAGATTTCAGA
AGAAGTGAGCAGATCAGAATTGAGGTCTTTTAAGTTTCTTTTGCAAGAGGAAATCTCCAAATGCAAACTGGATGA
TGACATGAACCTGCTGGATATTTTCATAGAGATGGAGAAGAGGGTCATCCTGGGAGAAGGAAAGTTGGACATCCT
GAAAAGAGTCTGTGCCCAAATCAACAAGAGCCTGCTGAAGATAATCAACGACTATGAAGAATTCAGCAAAGGGGA
GGAGTTGTGTGGGGTAATGACAATCTCGGACTCTCCAAGAGAACAGGATAGTGAATCACAGACTTTGGACAAAGT
TTACCAAATGAAAAGCAAACCTCGGGGATACTGTCTGATCATCAACAATCACAATTTTGCAAAAGCACGGGAGAA
AGTGCCCAAACTTCACAGCATTAGGGACAGGAATGGAACACACTTGGATGCAGGGGCTTTGACCACGACCTTTGA
AGAGCTTCATTTTGAGATCAAGCCCCACGATGACTGCACAGTAGAGCAAATCTATGAGATTTTGAAAATCTACCA
ACTCATGGACCACAGTAACATGGACTGCTTCATCTGCTGTATCCTCTCCCATGGAGACAAGGGCATCATCTATGG
CACTGATGGACAGGAGGCCCCCATCATGAGCTGACATCTCAGTTCACTGGTTTGAAGTGCCCTTCCCTTGCTGG
AAAAACCCAAAGTGTTTTTTATTCAGGCTTGTCAGGGGGATAACTACCAGAAAGGTATACCTGTTGAGACTGATTC
AGAGGAGCAACCCTATTTAGAAATGGATTTATCATCACCTCAAACGAGATATATCCCGGATGAGGCTGACTTTCT
GCTGGGGATGGCCACTGTGAATAACTGTGTTTCCTACCGAAACCCTGCAGAGGGAACCTGGTACATCCAGTCACT
TTGCCAGAGCCTGAGAGAGCGATGTCCTCGAGGCGATGATATTCTCACCATCCTGACTGAAGTGAACTATGAAGT
AAGCAACAAGGATGACAAGAAAAACATGGGGAAACAGATGCCTCAGCCTACTTTCACACTAAGAAAAAAACTTGT
CTTCCCTTCTGATTGATGGTGCTATTTTGTTTGTTTTGTTTTGTTTTGTTTTTTTGAGACAGAATCTCGCTCTGT
CGCCCAGGCTGGAGTGCAGTGGCGTGATCTCGGCTCACCGCAAGCTCCGCCTCCCGGGTTCACGCCATTCTCCTG
CCTCAGCCTCCCGAGTAGCTGGGACTACAGGGGCCCGCCACCACACCTGGCTAATTTTTTAAAAATATTTTTAGT
AGAGACAGGGTTTCACTGTGTTAGCCAGGGTGGTCTTGATCTCCTGACCTCGTGATCCACCCACCTCGGCCTCCC
AAAGTGCTGGGATTACAGGCGTGAGCCACCGCGCCTGGCCGATGGTACTATTTAGATATAACACTATGTTTATTT
ACTAATTTTCTAGATTTTCTACTTTATTAATTGTTTTGCACTTTTTTATAAGAGCTAAAGTTAAATAGGATATTA
ACAACAATAACACTGTCTCCTTTCTCTTATGCTTAAGGCTTTGGGAATGTTTTTAGCTGGTGGCAATAAATACCA
GACACGTACAAAATCCAGCTATGAATATAGAGGGCTTATGATTCAGATTGTTATCTATCAACTATAAGCCCACTG
TTAATATTCTATTAACTTTAATTCTCTTTCAAAGCTAAATTCCACACTACCACATTAAAAAAATTAGAAAGTAGC
CACGTATGGTGGCTCATGTCTATAATCCCAGCACTTTGGGAGGTTGAGGTGGGAGGATTTGCTTGAACCCAAGAG
GTCCAAGGCTGCAGTGAGCCATGTTCACACCGCTGCACTCAAGCTTGGGTGACAGAGCAAGACCCCGTCCCCAAA
AAAATTTTTTTTTAATAAAACAAAATTTGTTTGAAATCTTTTAAAAATTCAAATGATTTTACAAGTTTTAAAT
AAGCTCTCCCCAAACTTGCTTTATGCCTTCTTATTGCTTTTATGATATATATGCTTGGCTAACTATATTTGCT
TTTTGCTAACAATGCTCTGGGGTCTTTTTATGCATTTGCATTGCTCTTTCATCTCTGCTTGGATTATTTTAAAT
CATTAGGAATTAAGTTATCTTTAAAATTTAAGTATCTTTTTTCCAAACATTTTTTAATAGAATAAAATATAATT
TGATCTTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 867

MDFSRNLYDIGEQLDSEDLASLKFLSLDYIPQRKQEPIKDALMLFQRLQEKRMLEESNLSFLKELLFRINRLDLL
ITYLNTRKEEMERELQTPGRAQISAYRVMLYQISEEVSRSELRSFKFLLQEEISKCKLDDDMNLLDIFIEMEKRV
ILGEGKLDILKRVCAQINKSLLKIINDYEEFSKERSSSLEGSPDEFSNDFGQSLPNEKQTSGILSDHQQSQFCKS
TGESAQTSQH

FIGURE 868

AAGCTAAATAAATATAGCTTTATTCATCTTTCAGAGATTGCCATTTAGCCTAGAAAATTACATCAAAAGATGAAC
TGATTTTTGCTTGAAAAAGTCAACCATGTTTAATTGCTCACACAATTTTAATTACAACAGATGTAATTTCTAATA
TATACCATTCGATCACACACCATTTTTATGTTCTGGAGTGAGACCTGGGAGTATTTTGCTTAAGACTTTCTCATT
CTCTAAAACTAGCTTTGGCAGTTAACAATGTGGAGAATTCAGCACAAAAAGCACCCTAGCCCAGCCTTTTTATTT
TATTTTTTTAAATCTCTATTTAACCCTTCAAAGTTTCCTTTGCAGCCATATGCATTTCTAGGTGGCTCTACCTGT
AGAAGGCTGCACTTTCCAAGCGGCGAGGGACTTTAATTCTCACTTXCCACCACTCC

FIGURE 869

GGCACGAGGGAGGTCTGCATGAAGGGGATCCCCTACATCGCAGCCTACCAGAAGGAACTGGCTCATTCCCAGCCG
GCGGTGCAGCCCCGGCTCAAGCTGCTCCTGATGGGGCATAAGGCTGCAGGAAAGACTTTGCTGCGCCACTGCCTC
ACCGAGGAGAGAGTGGAGGGATGCCCAGGAGGAGGGGACAAGGAGAAGTGCTACCCACCGTCACCTCCCCCTGTG
AGCAAGGGCATCGAGGTGACCAGCTGGACGGCCGATGCCTCCCGGGGCCTGCGGTTCATCGTGTATGACTTAGCT
GGGGATGAAAGTTATGAGGTGATCCAGCCCTTCTTCCTGTCCCCAGGGGCCCTATACGTGCTGGTGGTCAACTTG
GCCACCTATGAGCCTCGCCACTTTCCTACCACCGTGGGCTCCTTCTTGCATCGGGTCGGGGCGAGAGTGCCCCAC
GCGGTGGTGTGCATCGTGGGCACCCACGCAGACCTGTGCGGAGAGCGTGAGCTGGAGGAGAAATGTCTGGACATT
CACCGCCAGATCGCCCTGCAGGAGAAGCACGACGCGGAGGGACTGAGCCGCTTGGCCAAGGTGGTGGACGAGGCA
CTGGCCCGGGACTTCGAGCTGCGCTCTGCCAGCCCCCACGCAGCCTACTATGGCGTTTCGGACAAGAACCTTCGA
CGGCGCAAGGCCCATTTTCAATACCTGCTCAACCACCGGCTGCAGATCCTCTCCCCCGTGTTGCCTGTTAGCTGC
AGGGACCCGCGCCACTTACGACGCCTTCGGGACAAGTTGCTGTCAGTTGCTGAGCACCGAGAGATCTTCCCCAAC
TTACACAGAGTACTGCCTCGATCCTGGCAGGTGCTGGAGGAACTGCATTTCCAGCCACCTCAGGCCCAGCGACTG
TGGCTAAGCTGGTGGGACTCGGCGCGCTTGGGCCTGCAGGCGGGTCTGACCGAGGACCGACTGCAGAGTGCCCTC
TCCTACCTGCATGAGAGCGGCAAGCTACTCTACTTTGAGGACAGTCCGGCTCTCAAGGAGCACGTCTTCCACAAC
CTCACCCGCCTCATCGACATCCTCAATGTCTTCTTCCAGAGGGATCCCTCTTTGCTGCTGCATAAGCTGCTCCTA
GGGACCAGTGGAGAGGGCAAGGCGGAGGGGGAAAGCTCCCCGCCCATGGCGCGGTCCACCCCCAGCCAGGAACTG
CTCCGGGCCACCCAGCTCCATCAGTATGTGGAGGGCTTTCTGTTGCATGGGCTCTTGCCAGCTCATGTCATTCGG
TTGCTGCTTAAGCCTCATGTCCAGGCCCAGCAGGACTTGCAGCTGTTGCTGGAGCTGCTGGAGAAGATGGGACTC
TGTTACTGCCTCAATAAACCCAAGGGCAAGCCTTTGAATGGGTCCACAGCTTGGTACAAGTTCCCATGCTATGTG
CAGAACGAGGTGCCCCATGCAGAAGCCTGGATTAATGGGACCAACCTAGCTGGGCAGTCTTTTGTGGCTGAGCAG
TTGCAGATTGAATATAGCTTTCCTTTTACTTTTCCACCTGGGTTGTTTGCACGCTACAGTGTCCAGATCAACAGC
CATGTGGTGCACAGGTCGGATGGTAAATTTCAGATCTTTGCCTATAGAGGGAAAGTTCCTGTGGTTGTGAGTTAC
AGACCTGCCAGGGGAGTCCTGCAGCCAGACACCCTGTCCATTGCTAGCCATGCATCATTACCAAATATATGGACC
GCATGGCAAGCCATAACCCCCTTGGTGGAGGAACTGAATGTCCTACTTCAGGAATGGCCTGGACTGCACTACACC
GTGCACATTCTCTGTTCTAAGTGCCTTAAGAGAGGATCGCCCAATCCACATGCTTTTCCAGGGGAGTTGCTGAGT
CAGCCCAGACCGGAAGGAGTGGCAGAGATCATTTGCCCCAAGAACGGCAGCGAGCGAGTAAATGTTGCCTTGGTT
TACCCACCCACGCCGACTGTGATCAGCCCCTGTTCCAAGAAGAATGTTGGTGAAAGCACAGAACCAGTGACGT
TTGTGGCTGTGGAATTTCCATGGAGAAAAGAGAGCATCTGAACACCTGGACCATCTTTTGCACCTGGCAGACCCT
CTGCACTCACCCCAGCGTGTTCTGTGAACTTGAGTGACAACGCGTGCTTGCAGGGTGCTTTTTGGATGACTGGGG
AAGAGGTGGGGAGGGGGTGGTGGGGGGAAGCATGGACGAGAACATGGAGCAAATGTTTTACAACCTGAACCTCAG
AACTGTGATCCTCCAAGGAGCGCGCTACTTGAAGAAAAAAAAAAAAAAAAAAAAAA

FIGURE 870

ATGCGGGAGATCGTGCACATCCAGGCCGGCCAGTGCGGCAACCAGATCGGGGCCAAGTTCTGGGAAGTCATCAGT
GATGAGCATGGCATCGACCCCAGCGGCAACTACGTGGGCGACTCGGACTTGCAGCTGGAGCGGATCAGCGTCTAC
TACAACGAGGCCTCTTCTCACAAGTACGTGCCTCGAGCCATTCTGGTGGACCTGGAACCCGGAACCATGGACAGT
GTCCGCTCAGGGGCCTTTGGACATCTCTTCAGGCCTGACAATTTCATCTTTGGTCAGAGTGGGGCCGGCAACAAC
TGGGCCAAGGGTCACTACACGGAGGGGGCGGAGCTGGTGGATTCGGTCCTGGATGTGGTGCGGAAGGAGTGTGAA
AACTGCGACTGCCTGCAGGGCTTCCAGCTGACCCACTCGCTGGGGGGGGGGACGGGCTCCGGCATGGGCACGTTG
CTCATCAGCAAGGTGCGTGAGGAGTATCCCGACCGCATCATGAACACCTTCAGCGTCGTGCCCTCACCCAAGGTG
TCAGACACGGTGGTGGAACCCTACAACGCCACGCTGTCCATCCACCAGCTGGTGGAAAACACGGATGAAACCTAC
TGCATCGACAACGAGGCGCTCTACGACATCTGCTTCCGCACCCTCAAGCTGGCCACGCCCACCTACGGGGACCTC
AACCACCTGGTATCGGCCACCATGAGCGGAGTCACCACCTCCTTGCGCTTCCCGGGCCAGCTCAACGCTGACCTG
CGCAAGCTGGCCGTCAACATGGTGCCCTTCCCGCGCCTGCACTTCTTCATGCCCGGCTTCGCCCCCCTCACCAGG
CGGGGCAGCCAGCAGTACCGGGCCCTGACCGTGCCCGAGCTCACCCAGCAGATGTTCGATGCCAAGAACATGATG
GCCGCCTGCGACCCGCGCCACGGCCGCTACCTGACGGTGGCCACCGTGTTCCGGGGCCGCATGTCCATGAAGGAG
GTGGACGAGCAGATGCTGGCCATCCAGAGCAAGAACAGCAGCTACTTCGTGGAGTGGATCCCCAACAACGTGAAG
GTGGCCGTGTGTGACATCCCGCCCCGCGGCCTCAAGATGTCCTCCACCTTCATCGGGAACAGCACGGCCATCCAG
GAGCTGTTCAAGCGCATCTCCGAGCAGTTCACGGCCATGTTCCGGCGCAAGGCCTTCCTGCACTGGTACACGGGC
GAGGGCATGGACGAGATGGAGTTCACCGAGGCCGAGAGCAACATGAACGACCTGGTGTCCGAGTACCAGCAGTAC
CAGGACGCCACGGCCGAGGAAGAGGGCGAGATGTACGAAGACGACGAGGAGGAGTCGGAGGCCCAGGGCCCCAAG
TGAAACTGCTCGCAGCTGGAGTGAGAGGCAGGTGGCGGCCGGGGCCGAAGCCAGCAGTGTCTAAACCCCCGGAGC
CATCTTGCTGCCGACACCCTGCTTTCCCCATCGCCCTAGGGCTCCCTTGCCGCCCTCCTGCAGTATTTATGGCCT
CGTCCTCCCCCACCTAGGCCACGTGTGAGCTGCTCCTGTCTCTGTCTTATTGCAGCTCCAGGCCTGACGTTTTAC
GGTTTTGTTTTTTACTGGTTTGTGTTTATATTTTCGGGGATACTTAATAAATCTATTGCTGTCAGATACCCTT

FIGURE 871

MREIVHIQAGQCGNQIGAKFWEVISDEHGIDPSGNYVGDSDLQLERISVYYNEASSHKYVPRAILVDLEPGTMDS
VRSGAFGHLFRPDNFIFGQSGAGNNWAKGHYTEGAELVDSVLDVVRKECENCDCLQGFQLTHSLGGGTGSGMGTL
LISKVREEYPDRIMNTFSVVPSPKVSDTVVEPYNATLSIHQLVENTDETYCIDNEALYDICFRTLKLATPTYGDL
NHLVSATMSGVTTSLRFPGQLNADLRKLAVNMVPFPRLHFFMPGFAPLTRRGSQQYRALTVPELTQQMFDAKNMM
AACDPRHGRYLTVATVFRGRMSMKEVDEQMLAIQSKNSSYFVEWIPNNVKVAVCDIPPRGLKMSSTFIGNSTAIQ
ELFKRISEQFTAMFRRKAFLHWYTGEGMDEMEFTEAESNMNDLVSEYQQYQDATAEEEGEMYEDDEEESEAQGPK

FIGURE 872

ACGCCCTATACAACTTGGCTTCACATACTTTTACACTAACTTTATATGATTTTTAAAAACTGGTCTGATCGGACT
TCTCGTCCTGGGACACTGTTTACTGGAGTCTGGCCGGCTCTCCGTGCTCCTCTTGGTACCTCATTTTGGGGAGAA
CCTTAAACCCACTCGAGCAGATAATCTCCGCCTTGACCGGTGCCACCAAAGAAGGGTTGGAACC**ATG**TGGACTTT
TCTGGGCATTGCCACTTTCACCTATTTTTATAAGAAGTTCGGGGACTTCATCACTTTGGCCAACAGGGAGGTCCT
GTTGTGCGTGCTGGTGTTCCTCTCGCTGGGCCTGGTGCTCTCCTACCGCTGTCGCCACCGAAACGGGGGTCTCCT
CGGGCGCCAGCGGAGCGGCTCCCAGTTCGCCCTCTTCTCGGATATTCTCTCAGGCCTGCCTTTCATTGGCTTCTT
CTGGGCCAAATCCCCCCCTGAATCAGAAAATAAGGAGCAGCTCGGGGCCAGGAGGCGCAGAAAAGGAACCAATAT
TTCAGAAACAAGCTTAATAGGAACAGCTGCCTGTACATCAACATCTTCTCAGAATGACCCAGAAGTTATCATCGT
GGGAGCTGGCGTGCTTGGCTCTGCTTTGGTAGCTGTGCTTTCCAGAGATGGAAGAAAGGTGACAGTCATTGAGAG
AGACTTAAAAGAGCCTGACAGAATAGTTGGAGAATTCCTGCAGCCGGGTGGTTATCATGTTCTCAAAGACCTTGG
TCTTGGAGATACAGTGGAAGGTCTTGATGCCCAGGTTGTAAATGGTTACATGATTCATGATCAGGAAAGCAAATC
AGAGGTTCAGATTCCTTACCCTCTGTCAGAAAACAATCAAGTGCAGAGTGGAAGAGCTTTCCATCACGGAAGATT
CATCATGAGTCTCCGGAAAGCAGCTATGGCAGAGCCCAATGCAAAGTTTATTGAAGGTGTTGTGTTACAGTTATT
AGAGGAAGATGATGTTGTGATGGGAGTTCAGTACAAGGATAAAGAGACTGGAGATATCAAGGAACTCCATGCTCC
ACTGACTGTTGTTGCAGATGGGCTTTTCTCCAAGTTCAGGAAAAGCCTGGTCTCCAATAAAGTTTCTGTATCATC
TCATTTTGTTGGCTTTCTTATGAAGAATGCACCACAGTTTAAAGCAAATCATGCTGAACTTATTTAGCTAACCC
GAGTCCAGTTCTCATCTACCGGATTTCATCCAGTGAAACTCGAGTACTTGTTGACATTAGAGGAGAAATGCCAAG
GAATTTAAGAGAATACATGGTTGAAAAAATTTACCCACAAATACCTGATCACCTGAAAGAACCATTCTTAGAAGC
CACTGACAATTCTCATCTGAGGTCCATGCTAGCAAGCTTCCTTCCTCCTTCATCAGTGAAGAAACGAGGTGTTCT
TCTTTTGGGAGACGCATATAATATGAGGCATCCACTTACTGGTGGAGGAATGACTGTTGCTTTTAAAGATATAAA
ACTATGGAGAAAACTGCTAAAGGGTATCCCTGACCTTTATGATGATGCAGCTATTTTCGAGGCCAACAAATCATT
TTACTGGGCAAGAAAAACATCTCATTCCTTTGTCGTGAATATCCTTGCTCAGGCTCTTTATGAATTATTTTCTGC
CACAGATGATTCCCTGCATCAACTAAGAAAAGCCTGTTTTCTTTATTTCAAACTTGGTGGCGAATGTGTTGCGGG
TCCTGTTGGGCTGCTTTCTGTATTGTCTCCTAACCCTCTAGCTTTAATTGGACACTTCTTTGCTGTTGCAATCTA
TGCCGTGTATTTTTGCTTTAAGTCAGAACCTTGGATTACAAAACCTCGAGCCCTTCTCAGTAGTAGTGCTGTATT
GTACAAAGCGTGTTCTGTAATATTTCCTCTAATTTACTCAGAAATGAAGTATATGGTTCAT**TAA**GCTTAAAGGGG
AACCATTTGTGAATGAATATTTGGAACTTACCAAGTCCTAAGAGACTTTTGGAAGAGGATATATATAGCATAGTA
CCATACCACTTATAAAGTGGAAACTCTTGGACCAAGATTTGGATTAATTTGTTTTTGAAGTTTTTTGTATATAAA
TATGTAAATACATGCTTTAATTTGCAATTTAAAATGAAGGGGTTAAATAAGTTAGACATTTGAAAGAAATGATTG
TTACCATAAATTAGTGCTAATGCTGAGGAGAACTACAGTTTTTCTTTTGAATTTAGTATTTGAGATGAGTTGTTG
GGACATGCAAATAAAATGAAGAATGAC

FIGURE 873

MWTFLGIATFTYFYKKFGDFITLANREVLLCVLVFLSLGLVLSYRCRHRNGGLLGRQRSGSQFALFSDILSGLPF
IGFFWAKSPPESENKEQLGARRRRKGTNISETSLIGTAACTSTSSQNDPEVIIVGAGVLGSALVAVLSRDGRKVT
VIERDLKEPDRIVGEFLQPGGYHVLKDLGLGDTVEGLDAQVVNGYMIHDQESKSEVQIPYPLSENNQVQSGRAFH
HGRFIMSLRKAAMAEPNAKFIEGVVLQLLEEDDVVMGVQYKDKETGDIKELHAPLTVVADGLFSKFRKSLVSNKV
SVSSHFVGFLMKNAPQFKANHAELILANPSPVLIYRISSSETRVLVDIRGEMPRNLREYMVEKIYPQIPDHLKEP
FLEATDNSHLRSMLASFLPPSSVKKRGVLLLGDAYNMRHPLTGGGMTVAFKDIKLWRKLLKGIPDLYDDAAIFEA
NKSFYWARKTSHSFVVNILAQALYELFSATDDSLHQLRKACFLYFKLGGECVAGPVGLLSVLSPNPLALIGHFFA
VAIYAVYFCFKSEPWITKPRALLSSSAVLYKACSVIFPLIYSEMKYMVH

FIGURE 874

GGCGCCATTTTGCTGGAGCCTGCGACCGAGTGGGAGTGGAGTGGAGCGGCTGTGGTTGCCGACTCTTTCCTCTTC
CCCACGGTCCAGTCAGCGGGTTAATTAGGCCATCGGCCCTCGAGCCGAGACTTGTCTCTTATTTAGTTCTGGGGA
GCGCCTCGTCGACA**TGA**GTGATGTGGAGGAAAACAACTTCGAGGGCAGAGTGAGTACAAAGCCGCGGGAGCCGTC
TAGGCGGCGGCCCAATGCTCGGGGTTTCACGGGAACAAGCGCGGTCGGGCGGGGTTGCGGGTAGTCCCGCGAGGA
GCAACCTCTGGAGCCATCGCGATTGATTCCTCCCATCCCAAGATGGCTTCTGGGTTCCACTCCTTCCCCAAACAC
CACGGATAACACCCCTCCCCCTTTTTTGGAGGCTGACTGATACCTGGACTTCTGGGTCCTCTTCCCTCCCCGCCC
CCGCATTGCTTCCTCCCTTCTCCCCACCCCTGAGGCTTCCTTATGTCTGCTCCGAGGTGTGGGTCCCCGTCGCGG
TTGGGCGGGAGGAGGCGGCAGGGAGCTCCCCTCCGTCCGGATAGTGGTAGGTGCTTCCTGCGGTGGCATTTCTGG
CGACCCCGAGCATCGTAGAGGGTCTCGGGATCGAAAGTGCGCGGGGCTGCTTTCCGGGCGGGGAGAAGCTGGCGT
GGGACTAGCTGGGGCCTGTGTCTCCTTGGCTCTCTATTTCAGTGAGCGGCCGCGTCTCTGTTGGAACCGGCGGCG
TTGCGTCTAAAAAGGCGAAAGCCTTGAGGTTGAAGGTGGGACGAGCCTAATGAAGTGGTTAGTCAACGACCGCAC
CGACCCTTAAGCGTTCTTAAGACGAGAGCTGTGAGGGGAAACTACGCAAGGAGCCCTTTTCCCTTAATGTCCCTT
CGACTTTCCTTTCACTTCGAAATGAATGTGGAAATGCTGTCACGCCTTATTTTTCTAATTCCTCGATGTTGGGTT
TTTTCTCTTCTTTATATCTCAACTTTTAATGCTCTTCTTCCTATGACCTTTCATCTAAAAACTGACCACTCCTTT
ACAGGTTTTTACGGTAAAAAAAAAAAAATCGGTCTTTCTTTAATCTTACATAGCTGAACGAATTCATTGGCTCAG
TATTTTTAAGATAACTAGTCAGTATATACTGTTCTGTAACTTAAAAGATGACCTGAAAATTAACAGGCCCTCTCC
CATTTCTCTTCTCACTCTATCCCCCACCGAAGAGGGCTCAGAAAAAAGTTTTTATTAATATATTTGGGGTCGGAG
AAATACAAACATCACAAAGAATACGATATCCCCAGCTTAAATGTACTGGAACGTTTGTCAGTGAGTTTCATTTCC
AAAGTTTACCCTACATAGGGAATTGTAGAAGTGAGTTAGTAGAAGTGAGTTCGTGTGAAACCCTGGAAAGAAAAC
AAAAGCCCCATGCAACACGTTCCGGGCTGTTGTGTAGATGTTTATTCTAGTCACTAGGGGAAGCACATAAAAACA
CCTGAGGTGTGTGTGCTGAAGGGCGAATTTTGTCCTTTTGGGGAGTTCATGATATAAACATCTAGAACCAAAAAG
TCAAATCAGAAGGTCAGTTTAGGCTTTAGTTCTCTTTGAGGAAAGATTTAAAGCAATAGACTATAATAGTTACCC
GGTAGACTAAAAAATTTGCCTTTAATTCTTTTGATTGGAATTTTTTTTTACAAAGTTTGGAGCATGGAAACAAAT
GAAAATTGAACCTGCTTATTTTTTAGGATGGTGTATTGATGGCCCCAACAGAACTTTCTAAAATCATGCGATAAA
CATATATGATAGTAGTTGTAAAATGCTTCTTGTTTTGAAAATGTTGAGTAATTATCGATAGAAATTTTGCTGTCC
ATTCATACATTCCTTCAATTAACTTTCATTGTTAAAAAATTGGGGGATTGATGTTTGGTTTGGTTTGTGGGGAGT
GAAGAGGACTACTGGAGGGACCTTGTTTGCTTGCTTTTTTTCTTTTTTTAATTTATCATCAAGTCTAGGAAAGGA
GTAAGTTGCCGACAATTGTCACTTTTCCCTCCTAAGAAAGTAACATGTTAAGATTCCCACCTACCAGCCTGGGTG
ACAGTGAGACTCCCGTCTCNNNNNNNNNNNNNNNNNNNNNNTTCCCACCCACTTTTAAGCTAAAGTATATGTAGGCA
TTAAAGATTTATTTAATAGAAATAAAGGGCCCTCTTACGGCCCTTTGTGGTCATAGGAAATATTTTTTTCACAAG
TGGTACCCAAGTGTATTT

FIGURE 875

RHFAGACDRVGVEWSGCGCRLFPLPHGPVSGLIRPSALEPRLVSYLVLGSASST

FIGURE 876

CCGCCGCCGCCATCTGAGGGAGGTACCCTGGAAACCACCTTTTATCGGTGGGGAAGTGCAGTCGCGGTGGGCGGC
TCTGGGGGCCAGCGAAACGGGAGGCCTCTAAATCTTTAGGTTGGGGCTGCATTGCCCTGGAGCCGCACTCTTGAG
TCCGAGGCCATCTTTTGTTGGAGAAGGCGTCGGCGTTGGCGTTTTCCCGAGGTTGGGCTGTACAGTGTCTCCGTC
CGCGGAAAAAGAAGCCTCTGAACCCGCGCCGGCCCGCAGCCCCCGTGCCTTCCGGCCGCTGCTCGCCGTCGCCAG
AGGCTAGGCCACGTTTCCCCCAGTGCCGAGGTGTTTCTGTGACCCTCCCTCCACTCCCATTCCCTTCTGAAAGGG
CACCTGCTCTTGGTGAGAAAAGAAATTATAGCACGAAGAGCCAGTATCAGAAGAGTATCCATCACCCGCAGCAAC
CGCTCAGGGAACACCATCAAAAAAAAAAAAAAAAAAAA

FIGURE 877

CTCGACTCTTAGCTTGTCGGGGACGGTAACCGGGACCCGGTGTCTGCTCCTGTCGCCTTCGCCTCCTAATCCCTA
GCCACT**ATG**CGTGAGTGCATCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGCAATGCCTGCTGGGAGCTC
TACTGCCTGGAACACGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATTGGGGGAGGAGATGACTCC
TTCAACACCTTCTTCAGTGAGACGGGCGCTGGCAAGCACGTGCCCCGGGCTGTGTTTGTAGACTTGGAACCCACA
GTCATTGATGAAGTTCGCACTGGCACCTACCGCCAGCTCTTCCACCCTGAGCAGCTCATCACAGGCAAGGAAGAT
GCTGCCAATAACTATGCCCGAGGGCACTACACCATTGGCAAGGAGATCATTGACCTTGTGTTGGACCGAATTCGC
AAGCTGGCTGACCAGTGCACCGGTCTTCAGGGCTTCTTGGTTTTCCACAGCTTTGGTGGGGGAACTGGTTCTGGG
TTCACCTCCCTGCTCATGGAACGTCTCTCAGTTGATTATGGCAAGAAGTCCAAGCTGGAGTTCTCCATTTACCCA
GCACCCCAGGTTTCCACAGCTGTAGTTGAGCCCTACAACTCCATCCTCACCACCCACACCACCCTGGAGCACTCT
GATTGTGCCTTCATGGTAGACAATGAGGCCATCTATGACATCTGTCGTAGAAACCTCGATATCGAGCGCCCAACC
TACACTAACCTTAACCGCCTTATTAGCCAGATTGTGTCCTCCATCACTGCTTCCCTGAGATTTGATGGAGCCCTG
AATGTTGACCTGACAGAATTCCAGACCAACCTGGTGCCCTACCCCCGCATCCACTTCCCTCTGGCCACATATGCC
CCTGTCATCTCTGCTGAGAAAGCCTACCATGAACAGCTTTCTGTAGCAGAGATCACCAATGCTTGCTTTGAGCCA
GCCAACCAGATGGTGAAATGTGACCCTCGCCATGGTAAATACATGGCTTGCTGCCTGTTGTACCGTGGTGACGTG
GTTCCCAAAGATGTCAATGCTGCCATTGCCACCATCAAAACCAAGCGCAGCATCCAGTTTGTGGATTGGTGCCCC
ACTGGCTTCAAGGTTGGCATCAACTACCAGCCTCCCACTGTGGTGCCTGGTGGAGACCTGGCCAAGGTACAGAGA
GCTGTGTGCATGCTGAGCAACACCACAGCCATTGCTGAGGCCTGGGCTCGCCTGGACCACAAGTTTGACCTGATG
TATGCCAAGCGTGCCTTTGTTCACTGGTACGTGGGTGAGGGGATGGAGGAAGGCGAGTTTTCAGAGGCCCGTGAA
GATATGGCTGCCCTTGAGAAGGATTATGAGGAGGTTGGTGTGGATTCTGTTGAAGGAGAGGGTGAGGAAGAAGGA
GAGGAATAC**TAA**TTATCCATTCCTTTTGGCCCTGCAGCATGTCATGCTCCCAGAATTTCAGCTTCAGCTTAACTG
ACAGACGTTAAAGCTTTCTGGTTAGATTGTTTTCACTTGGTGATCATGTCTTTTCCATGTGTACCTGTAATATTT
TTCCATCATATCTCAAAGTAAAGTCATTAACATCAAAAAAAAAAAAAAAAA

FIGURE 878

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDLEPTVI
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIRKLADQCTGLQGFLVFHSFGGGTGSGFT
SLLMERLSVDYGKKSKLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT
NLNRLISQIVSSITASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISAEKAYHEQLSVAEITNACFEPAN
QMVKCDPRHGKYMACCLLYRGDVVPKDVNAAIATIKTKRSIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV
CMLSNTTAIAEAWARLDHKFDLMYAKRAFVHWYVGEGMEEGEFSEAREDMAALEKDYEEVGVDSVEGEGEEEGEE
Y

FIGURE 879

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GGCACGAGGCAGTAGCTCCCGTTGCGGCGGCACCCGTGGCAGCCCTGGCGGACGCAGGAGCGATGGCAGCGACCG
ATATAGCTCGCCAGGTGGGTGAAGGTTGCCGAACTGTCCCCCTGGCTGGACATGTGGGGTTTGACAGCTTGCCTG
ACCAGCTGGTGAATAAGTCCGTCAGCCAGGGCTTCTGCTTCAACATCCTGTGCGTGGGAGAGACAGGTTTGGGCA
AGTCCACCCTCATGGACACCCTGTTCAACACCAAATTCGAAGGGGAGCCAGCCACCCACACACAGCCGGGTGTCC
AGCTCCAGTCTAATACCTATGACCTCCAAGAGAGCAACGTGAGGCTAAAGCTCACGATCGTTAGCACAGTTGGCT
TTGGGGACCAGATCAACAAAGAGGACAGCTACAAGCCTATCGTGGAATTCATCGATGCACAATTCGAGGCCTACC
TGCAGGAAGAGCTAAAGATCCGAAGAGTGCTACACACCTACCATGACTCCCGAATCCATGTCTGCTTGTATTTCA
TTGCCCCCACGGGTCATTCCCTGAAGTCTCTGGACCTAGTGACTATGAAGAAGCTGGACAGTAAGGTGAACATCA
TCCCCATCATTGCCAAAGCAGATGCCATTTCGAAGAGTGAGCTAACAAAGTTCAAAATCAAAATCACCAGCGAGC
TTGTCAGCAACGGAGTCCAGATCTATCAGTTTCCTACAGATGATGAGTCGGTGGCAGAGATCAATGGAACCATGA
ACGCCCACCTGCCGTTTGCTGTCATTGGCAGCACAGAAGAACTGAAGATAGGCAACAAGATGATGAGGGCGCGGC
AGTATCCTTGGGGCACTGTGCAGGTTGAAAACGAGGCCCACTGCGACTTTGTGAAGCTGCGGGAGATGCTGATTC
GGGTCAACATGGAGGATCTGCGGGAGCAGACCCACACCCGGCACTATGAGCTGTATCGCCGCTGTAAGCTGGAGG
AGATGGGCTTCAAGGACACCGACCCTGACAGCAAACCCTTCAGTTTACAGGAGACATATGAGGCCAAAAGGAACG
AGTTCCTAGGGGAACTCCAGAAAAAAGAAGAGGAGATGAGACAGATGTTCGTCCAGCGAGTCAAAGAGAAAGAAG
CGGAGCTCAAAGAGGCAGAGAAAGAGCTGCACGAGAAGTTTGACCGTCTGAAGAAACTGCACCAGGACGAGAAGA
AGAAACTGGAGGATAAGAAGAAATCCCTGGATGATGAAGTGAATGCTTTCAAGCAAAGAAAGACGGCGGCTGAGC
TGCTCCAGTCCCAGGGCTCCCAGGCTGGAGGCTCACAGACTCTGAAGAGAGACAAAGAGAAGAAAAACTTTTTTT
AATCTTGTCTTCAGCAGCTGCACTAAGTCTAAAGGAGAAGACTGCCATTATAGAAGAGTTAGGGTTCCATATTGT
CTCAAATCAGAAATCAACCAATTTCCTCTCCCCTCAAACTGCAAGCACACACACATACACCACACCACTCAACAA
GTGTTCATGTGTCCCTGTGTCCAGGCAAGAAGCTCTCTTCCTGACTCACATGGTATTTTAAATGGAAGTGTCTTG
TCCTAACTAACAAGGCAGGAAAAGAACCATCAGAGCTGGAAAATGGACGAAATGTAACCTCAGAGAAACAACTAC
AGGACCACTCACCCAAGTGTAAGTGACTGGGGCAGGACACCTCAGCTGTGGGTATGAAAGTACTGTTCTGTTCAC
AAGGTTTTGTTTGAGTTTTATGTTTTTCTTTTAAACATTTCTCTGGTTCGATGGGTTGACTGTCTACAGCCACTG
TTAAACATTTCTGAATATGCAAGAGAAAGTCAAGTGACATTTGTATCTTCTTCAGCATTCGCAGACCTTCTATAG
ATTCCAGCAAAGGGGGAAAATGTATCCACTATCTAACACTTAGGTAGAGAAGGGAGGGGGTTTAAGCTTAGTGAG
GGCAAAATTACTCCATTCCACCTTCCGAGACCAGTTAGGGTTTTGAGAGAGGTTTCTGCTCAACCTGGGATCTGG
AGGGAGAGCTTTGATGTTGGTAAATCTGCCTTGAATTCATTGGTTTAACTTGCATCAAAATACCATGTGAGTGTG
CTCATTCTCATATATCCCCTACCACCATCACCACCATTCTGCTGTTCAGTGTCTCTTGAGAGAGCCTCTTTGCAT
GTTTTCCAGAATCTGTGTGTGTGTTTTCCTTTCTTCTCCTTTGTTCTTTTTGCTCAAAGGTGTGACCAGTCATTGC
CCCTCTGGGGCTTTCATTCTCCAGGAGAAACATCCCAGAACCAGCACTGTTTAGCCTGATACCTTTCTAATGTCC
ATGTCAATTTTCAATAAAATTCAAAGAAATGCTAAAAAAAAAAAAAAAAAAAAA
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FIGURE 880

MAATDIARQVGEGCRTVPLAGHVGFDSLPDQLVNKSVSQGFCFNILCVGETGLGKSTLMDTLFNTKFEGEPATHT
QPGVQLQSNTYDLQESNVRLKLTIVSTVGFGDQINKEDSYKPIVEFIDAQFEAYLQEELKIRRVLHTYHDSRIHV
CLYFIAPTGHSLKSLDLVTMKKLDSKVNIIPIIAKADAISKSELTKFKIKITSELVSNGVQIYQFPTDDESVAEI
NGTMNAHLPFAVIGSTEELKIGNKMMRARQYPWGTVQVENEAHCDFVKLREMLIRVNMEDLREQTHTRHYELYRR
CKLEEMGFKDTDPDSKPFSLQETYEAKRNEFLGELQKKEEEMRQMFVQRVKEKEAELKEAEKELHEKFDRLKKLH
QDEKKKLEDKKKSLDDEVNAFKQRKTAAELLQSQGSQAGGSQTLKRDKEKKNFF

FIGURE 881

ATCAGCGAGGGATTCACGGCGAA**ATG**AGACTGTTCGTGAGTGATGGCGTCCCGGGTTGCTTGCCGGTGCTGGCCG
CCGCCGGGAGAGCCCGGGGCAGAGCAGAGGTGCTCATCAGCACTGTAGGCCCGGAAGATTGTGTGGTCCCGTTCC
TGACCCGGCCTAAGGTCCCTGTCTTGCAGCTGGATAGCGGCAACTACCTCTTCTCCACTAGTGCAATCTGCCGAT
ATTTTTTTTTGTTATCTGGCTGGGAGCAAGATGACCTCACTAACCAGTGGCTGGAATGGGAAGCGACAGAGCTGC
AGCCAGCTTTGTCTGCTGCCCTGTACTATTTAGTGGTCCAAGGCAAGAAGGGGGAAGATGTTCTTGGTTCAGTGC
GGAGAGCCCTGACTCACATTGACCACAGCTTGAGTCGTCAGAACTGTCCTTTCCTGGCTGGGGAGACAGAATCTC
TAGCCGACATTGTTTTGTGGGGAGCCCTATACCCATTACTGCAAGATCCCGCCTACCTCCCTGAGGAGCTGAGTG
CCCTGCACAGCTGGTTCCAGACACTGAGTACCCAGGAACCATGTCAGCGAGCTGCAGAGACTGTACTGAAACAGC
AAGGTGTCCTGGCTCTCCGGCCTTACCTCCAAAAGCAGCCCCAGCCCAGCCCCGCTGAGGGAAGGGCTGTCACCA
ATGAGCCTGAGGAGGAGGAGCTGGCTACCCTATCTGAGGAGGAGATTGCTATGGCTGTTACTGCTTGGGAGAAGG
GCCTAGAAAGTTTGCCCCCGCTGCGGCCCCAGCAGAATCCAGTGTTGCCTGTGGCTGGAGAAAGGAATGTGCTCA
TCACCAGTGCCCTCCCTTACGTCAACAATGTCCCCCACCTTGGGAACATCATTGGTTGTGTGCTCAGTGCCGATG
TCTTTGCCAGGTACTCTCGCCTCCGCCAGTGGAACACCCTCTATCTGTGTGGGACAGATGAGTATGGTACAGCAA
CAGAGACCAAGGCTCTGGAGGAGGGACTAACCCCCCAGGAGATCTGCGACAAGTACCACATCATCCATGCTGACA
TCTACCGCTGGTTTAACATTTCGTTTGATATTTTTGGTCGCACCACCACTCCACAGCAGACCAAAATCACCCAGG
ACATTTTCCAGCAGTTGCTGAAACGAGGTTTTGTGCTGCAAGATACTGTGGAGCAACTGCGATGTGAGCACTGTG
CTCGCTTCCTGGCTGACCGCTTCGTGGAGGGCGTGTGTCCCTTCTGTGGCTATGAGGAGGCTCGGGGTGACCAGT
GTGACAAGTGTGGCAAGCTCATCAATGCTGTCGAGCTTAAGAAGCCTCAGTGTAAAGTCTGCCGATCATGCCCTG
TGGTGCAGTCGAGCCAGCACCTGTTTCTGGACCTGCCTAAGCTGGAGAAGCGACTGGAGGAGTGGTTGGGGAGGA
CATTGCCTGGCAGTGACTGGACACCCAATGCCCAGTTTATCACCCGTTCTTGGCTTCGGGATGGCCTCAAGCCAC
GCTGCATAACCCGAGACCTCAAATGGGGAACCCCTGTACCCTTAGAAGGTTTTGAAGACAAGGTATTCTATGTCT
GGTTTGATGCCACTATTGGCTATCTGTCCATCACAGCCAACTACACAGACCAGTGGGAGAGATGGTGGAAGAACC
CAGAGCAAGTGGACCTGTATCAGTTCATGGCCAAAGACAATGTTCCTTTCCATAGCTTAGTCTTTCCTTGCTCAG
CCCTAGGAGCTGAGGATAACTATACCTTGGTCAGCCACCTCATTGCTACAGAGTACCTGAACTATGAGGATGGGA
AATTCTCTAAGAGCCGCGGTGTGGGAGTGTTTGGGGACATGGCCCAGGACACGGGGATCCCTGCTGACATCTGGC
GCTTCTATCTGCTGTACATTCGGCCTGAGGGCCAGGACAGTGCTTTCTCCTGGACGGACCTGCTGCTGAAGAATA
ATTCTGAGCTGCTTAACAACCTGGGCAACTTCATCAACAGAGCTGGGATGTTTGTGTCTAAGTTCTTTGGGGGCT
ATGTGCCTGAGATGGTGCTCACCCCTGATGATCAGCGCCTGCTGGCCCATGTCACCCTGGAGCTCCAGCACTATC
ACCAGCTACTTGAGAAGGTTCGGATCCGGGATGCCTTGCGCAGTATCCTCACCATATCTCGACATGGCAACCAAT
ATATTCAGGTGAATGAGCCCTGGAAGCGGATTAAAGGCAGTGAGGCTGACAGGCAACGGGCAGGAACAGTGACTG
GCTTGGCAGTGAATATAGCTGCCTTGCTCTCTGTCATGCTTCAGCCTTACATGCCCACGGTTAGTGCCACAATCC
AGGCCCAGCTGCAGCTCCCACCTCCAGCCTGCAGTATCCTGCTGACAAACTTCCTGTGTACCTTACCAGCAGGAC
ACCAGATTGGCACAGTCAGTCCCTTGTTCCAAAAATTGGAAAATGACCAGATTGAAAGTTTAAGGCAGCGCTTTG
GAGGGGGCCAGGCAAAAACGTCCCCGAAGCCAGCAGTTGTAGAGACTGTTACAACAGCCAAGCCACAGCAGATAC
AAGCGCTGATGGATGAAGTGACAAAACAAGGAAACATTGTCCGAGAACTGAAAGCACAAAAGGCAGACAAGAACG
AGGTTGCTGCGGAGGTGGCGAAACTCTTGGATCTAAAGAAACAGTTGGCTGTAGCTGAGGGGAAACCCCCTGAAG
CCCCTAAAGGCAAGAAGAAAAAG**TAA**AAGACCTTGGCTCATAGAAAGTCACTTTAATAGATAGGGACAGTAATAA
ATAAATGTACAATCTCTATA

FIGURE 882

MRLFVSDGVPGCLPVLAAAGRARGRAEVLISTVGPEDCVVPFLTRPKVPVLQLDSGNYLFSTSAICRYFFLLSGW
EQDDLTNQWLEWEATELQPALSAALYYLVVQGKKGEDVLGSVRRALTHIDHSLSRQNCPFLAGETESLADIVLWG
ALYPLLQDPAYLPEELSALHSWFQTLSTQEPCQRAAETVLKQQGVLALRPYLQKQPQPSPAEGRAVTNEPEEEEL
ATLSEEEIAMAVTAWEKGLESLPPLRPQQNPVLPVAGERNVLITSALPYVNNVPHLGNIIGCVLSADVFARYSRL
RQWNTLYLCGTDEYGTATETKALEEGLTPQEICDKYHIIHADIYRWFNISFDIFGRTTTPQQTKITQDIFQQLLK
RGFVLQDTVEQLRCEHCARFLADRFVEGVCPFCGYEEARGDQCDKCGKLINAVELKKPQCKVCRSCPVVQSSQHL
FLDLPKLEKRLEEWLGRTLPGSDWTPNAQFITRSWLRDGLKPRCITRDLKWGTPVPLEGFEDKVFYVWFDATIGY
LSITANYTDQWERWWKNPEQVDLYQFMAKDNVPFHSLVFPCSALGAEDNYTLVSHLIATEYLNYEDGKFSKSRGV
GVFGDMAQDTGIPADIWRFYLLYIRPEGQDSAFSWTDLLLKNNSELLNNLGNFINRAGMFVSKFFGGYVPEMVLT
PDDQRLLAHVTLELQHYHQLLEKVRIRDALRSILTISRHGNQYIQVNEPWKRIKGSEADRQRAGTVTGLAVNIAA
LLSVMLQPYMPTVSATIQAQLQLPPPACSILLTNFLCTLPAGHQIGTVSPLFQKLENDQIESLRQRFGGGQAKTS
PKPAVVETVTTAKPQQIQALMDEVTKQGNIVRELKAQKADKNEVAAEVAKLLDLKKQLAVAEGKPPEAPKGKKKK

FIGURE 883

GGCACGAGGCTGCTGTTTGTCTACTTCCTCCTGCTTCCCCGCCGCCGCCGCCGCCATC**ATG**AGGGAAATCGTGCA
CTTGCAGGCCGGGCAGTGCGGCAACCAAATCGGCGCCAAGTTTTGGGAGGTGATCAGCGATGAGCACGGCATCGA
CCCCACGGGCACCTACCACGGGGACAGCGACCTGCAGCTGGAACGCATCAACGTGTACTACAATGAGGCCACCGG
CGGCAAGTACGTGCCCCGCGCCGTGCTCGTGGATCTGGAGCCCGGCACCATGGACTCCGTGCGCTCGGGGCCCTT
CGGGCAGATCTTCCGGCCGGACAACTTCGTTTTCGGTCAGAGTGGTGCTGGGAACAACTGGGCCAAGGGGCACTA
CACAGAAGGCGCGGAGCTGGTGGACTCGGTGCTGGATGTTGTGAGAAAGGAGGCTGAGAGCTGTGACTGCCTGCA
GGGTTTCCAGCTGACCCACTCCCTGGGTGGGGGGACTGGGTCTGGGATGGGTACCCTCCTCATCAGCAAGATCCG
GGAGGAGTACCCAGACAGGATCATGAACACGTTTAGTGTGGTGCCTTCGCCCAAAGTGTCAGACACAGTGGTGGA
GCCCTACAACGCCACCCTCTCAGTCCACCAGCTCGTAGAAAACACAGACGAGACCTACTGCATTGATAACGAAGC
TCTCTACGACATTTGCTTCAGAACCCTAAAGCTGACCACGCCCACCTATGGTGACCTGAACCACCTGGTGTCTGC
TACCATGAGTGGGGTCACCACCTGCCTGCGCTTCCCAGGCCAGCTCAATGCTGACCTGCGGAAGCTGGCTGTGAA
CATGGTCCCGTTTCCCCGGCTGCACTTCTTCATGCCCGGCTTTGCCCCACTGACCAGCCGGGGCAGCCAGCAGTA
CCGGGCGCTGACCGTGCCCGAGCTCACCCAGCAGATGTTTGATGCCAAGAACATGATGGCTGCCTGCGACCCCCG
CCATGGCCGCTACCTGACGGTTGCCGCCGTGTTCAGGGGCCGCATGTCCATGAAGGAGGTGGATGAGCAAATGCT
TAATGTCCAAAACAAAAACAGCAGCTATTTTGTTGAGTGGATCCCCAACAATGTGAAAACGGCTGTCTGTGACAT
CCCACCTCGGGGGCTAAAAATGTCCGCCACCTTCATTGGCAACAGCACGGCCATCCAGGAGCTGTTCAAGCGCAT
CTCCGAGCAGTTCACGGCCATGTTCCGGCGCAAGGCCTTCCTGCACTGGTACACGGGCGAGGGCATGGACGAGAT
GGAGTTCACCGAGGCCGAGAGCAACATGAATGACCTGGTGTCCGAGTACCAGCAGTACCAGGATGCCACAGCCGA
GG**A**GGAGGGCGAGTTCGAGGAGGAGGCTGAGGAGGAGGTGGCC**TAG**AGCCTTCAGTCACTGGGGAAAGCAGGGAA
GCAGTGTGAACTCTTTATTCACTCCCAGCCTGTCCTGTGGCCTGTCCCACTGTGTGCACTTGCTGTTTTCCCTGT
CCACATCCATGCTGTACAGACACCACCATTAAAGCATTTTCATAGTGAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AA

FIGURE 884

MREIVHLQAGQCGNQIGAKFWEVISDEHGIDPTGTYHGDSDLQLERINVYYNEATGGKYVPRAVLVDLEPGTMDS
VRSGPFGQIFRPDNFVFGQSGAGNNWAKGHYTEGAELVDSVLDVVRKEAESCDCLQGFQLTHSLGGGTGSGMGTL
LISKIREEYPDRIMNTFSVVPSPKVSDTVVEPYNATLSVHQLVENTDETYCIDNEALYDICFRTLKLTTPTYGDL
NHLVSATMSGVTTCLRFPGQLNADLRKLAVNMVPFPRLHFFMPGFAPLTSRGSQQYRALTVPELTQQMFDAKNMM
AACDPRHGRYLTVAAVFRGRMSMKEVDEQMLNVQNKNSSYFVEWIPNNVKTAVCDIPPRGLKMSATFIGNSTAIQ
ELFKRISEQFTAMFRRKAFLHWYTGEGMDEMEFTEAESNMNDLVSEYQQYQDATAEEEGEFEEEAEEEVA

FIGURE 885

CAGGAGAAGCTGACCAGCCGCAAGATGGACAGCCGCTGGGGCGGGCGCAGCGAGTCCATCAATGTGACCCTCAACs
GTGGAGCAGGCAGCCTACACCCGTGATGCCCTGGCCAAGGGGCTCTATGCCCGCCTCTTCGACTTCCTCGTGGAG
GCCATCAACCGTGCTATGCAGAAACCCCAGGAAGAGTACAGCATCGGTGTGCTGGACATTTACGGCTTCGAGATC
TTCCAGAAAAATGGCTTCGAGCAGTTTTGCATCAACTTCGTCAATGAGAAGCTGCAGCAAATCTTTATCGAACTT
ACCCTGAAGGCCGAGCAGGAGGAGTATGTGCAGGAAGGCATCCGCTGGACTCCAATCCAGTACTTCAACAACAAG
GTCGTCTGTGACCTCATCGAAAACAAGCTGAGCCCCCCAGGCATCATGAGCGTCTTGGACGACGTGTGCGCCACC
ATGCACGCCACGGGCGGGGGAGCAGACCAGACACTGCTGCAGAAGCTGCAGGCGGCTGTGGGGACCCACGAGCAT
TTCAACAGCTGGAGCGCCGGCTTCGTCATCCACCACTACGCTGGCAAGGTCTCCTACGACGTCAGCGGCTTCTGC
GAGAGGAACCGAGACGTTCTCTTCTCCGACCTCATAGAGCTGATGCAGTCCAGTGACCAGGCCTTCCTCCGGATG
CTCTTCCCCGAGAAGCTGGATGGAGACAAGAAGGGGCGCCCCAGCACCGCCGGCTCCAAGATCAAGAAACAAGCC
AACGACCTGGTGGCCACACTGATGAGGTGCACACCCCACTACATCCGCTGCATCAAACCCAACGAGACCAAGCAC
GCCCGAGACTGGGAGGAGAACAGAGTCCAGCACCAGGTGGAATACCTGGGCCTGAAGGAAAACATCAGGGTGCGC
AGAGCCGGCTTCGCCTACCGCCGCCAGTTCGCCAAATTCCTGCAGAGGTATGCCATTCTGACCCCCGAGACGTGG
CCGCGGTGGCGTGGGGACGAACGCCAGGGCGTCCAGCACCTGCTTCGGGCGGTCAACATGGAGCCCGACCAGTAC
CAGATGGGGAGCACCAAGGTCTTTGTCAAGAACCCAGAGTCGCTTTTCCTCCTGGAGGAGGTGCGAGAGCGAAAG
TTCGATGGCTTTGCCCGAACCATCCAGAAGGCCTGGCGGCGCCACGTGGCTGTCCGGAAGTACGAGGAGATGCGG
GAGGAAGCTTCCAACATCCTGCTGAACAAGAAGGAGCGGAGGCGCAACAGCATCAATCGGAACTTCGTCGGGGAC
TACCTGGGGCTGGAGGAGCGGCCCGAGCTGCGTCAGTTCCTGGGCAAGAAGGAGCGGGTGGACTTCGCCGATTCG
GTCACCAAGTACGACCGCCGCTTCAAGCCCATCAAGCGGGACTTGATCCTGACGCCCAAGTGTGTGTATGTGATT
GGGCGAGAGAAGATGAAGAAGGGACCTGAGAAAGGTCCAGTGTGTGAAATCTTGAAGAAGAAATTGGACATCCAG
GCTCTGCGGGGGGTCTCCCTCAGCACGCGACAGGACGACTTCTTCATCCTCCAAGAGGATGCCGCCGACAGCTTC
CTGGAGAGCGTCTTCAAGACCGAGTTTGTCAGCCTTCTGTGCAAGCGCTTCGAGGAGGCGACGCGGAGGCCCCTG
CCCCTCACCTTCAGCGACACACTACAGTTTCGGGTGAAGAAGGAGGGCTGGGCGGTGGCGGCACCCGCAGCGTC
ACCTTCTCCCGCGGCTTCGGCGACTTGGCAGTGCTCAAGGTTGGCGGTCGGACCCTCACGGTCAGCGTGGGCGAT
GGGCTGCCCAAGAACTCCAAGCCTACCGGAAAGGGATTGGCCAAGGGTAAACCTCGGAGGTCGTCCCAAGCCCCT
ACCCGGGCGGCCCCTGGCGCCCCCCAAGGCATGGATCGAAATGGGGCCCCCCTCTGCCCACAGGGGGGGGCCCCC
TGCCCCCTGGAGAAATTCATTTGGCCCAGGGGGCACCCACAGGCCTCCCCGGCCCTCCGTCCACATCCCTGGGAT
GCCAGCAGACGACCCCGGGCACGTCCGCCCTCAGAGCACAACACAGAATTCCTCAACGTGCCTGACCAGGGGATG
GCCGGCATGCAGAGGAAGCGCAGCGTGGGGCAACGGCCAGTGCCTGTGGGCCGACCCAAGCCCCAGCCTCGGACA
CATGGTCCCAGGTGCCGGGCCCTATACCAGTACGTGGGCCAAGATGTGGACGAGCTGAGCTTCAACGTGAACGAG
GTCATTGAGATCCTCATGGAAGATCCCTCGGGCTGGTGGAAGGGCCGGCTTCACGGCCAGGAGGGCCTTTTCCCA
GGAAACTACGTGGAGAAGATCTGAGCTGGGCCCTGGGATACTGCCTTCTCTTTCGCCCGCCTATCTGCCTGCCGG
CCTGGTGGGGAGCCAGGCCCTGCCAATGAAAGCCTCGTTTACCTGGGCTGCAATAGCCTAAAAGTCCAATCCTTT
GGCCTCCAGTCCTTGCCCAGGCCCTGGGTCACCAGGTCACTGGTGCAGCCCCCGCCCCTGGGCCCTGGTTTTCCT
CCAACATCACACCTGCTGCCCATTGTCCAAAACTGTGTGTGTCAAAGGGGACTAACAGCAGAATTTACCTCCCAA
CTGCCATGTGATTAAGAAATGGGTCTTGAGTCCTGTGCTGTTGGCAAAGTTCCAGGCACAGTTGGGGAGGGGGGG
CCGGAATCCGC

FIGURE 886

CGGAGCCAGCGTGGGAGGCCGCTGCCGTCGCGCGCCTTGGTTTTTCTGTTCCTTTTTTTTTTTTTTTTTAACTT
CCTGCCTATCACACGCAGCCATCAGCCCACAAAGAC**ATG**ACTACCAACGCGGGCCCCTTGCACCCATACTGGCCT
CAGCACCTAAGACTGGACAACTTTGTACCTAATGACCGCCCCACCTGGCATATACTGGCTGGCCTCTTCTCTGTC
ACAGGGGTCTTAGTCGTGACCACATGGCTGTTGTCAGGTCGTGCTGCGGTTGTCCCATTGGGGACTTGGCGGCGA
CTGTCCCTGTGCTGGTTTGCAGTGTGTGGGTTCATTCACCTGGTGATCGAGGGCTGGTTCGTTCTCTACTACGAA
GACCTGCTTGGAGACCAAGCCTTCTTATCTCAACTCTGGAAAGAGTATGCCAAGGGAGACAGCCGATACATCCTG
GGTGACAACTTCACAGTGTGCATGGAAACCATCACAGCTTGCCTGTGGGGACCACTCAGCCTGTGGGTGGTGATC
GCCTTTCTCCGCCAGCATCCCCTCCGCTTCATTCTACAGCTTGTGGTCTCTGTGGGCCAGATCTATGGGGATGTG
CTCTACTTCCTGACAGAGCACCGCGACGGATTCCAGCACGGAGAGCTGGGCCACCCTCTCTACTTCTGGTTTTAC
TTTGTCTTCATGAATGCCCTGTGGCTGGTGCTGCCTGGAGTCCTTGTGCTTGATGCTGTGAAGCACCTCACTCAT
GCCCAGAGCACGCTGGATGCCAAGGCCACAAAAGCCAAGAGCAAGAAGAAC**TGA**GGAGTGGTGGACCAGGCTCGA
ACACTGGCCGAGGAGGAGCTCTCTGCCTGCCAGAAGAGTCTAGTCCTGCTCCCACAGTTTGGAGGGACAAAGCTA
ATTGATCTGTCACACTCAGGCTCATGGGCAGGCACAAGAAGGGGAATAAAGGGGCTGTGTGAAGGCACTGCTGGG
AGCCATTAGAACACAGATACAAGAGAAGCCAGGAGGTCTATGATGGTGACGATTTTTAAAATCAGGAAATAAAAG
ATCTTGACTCTAAAAAAAAAAAA

FIGURE 887

MTTNAGPLHPYWPQHLRLDNFVPNDRPTWHILAGLFSVTGVLVVTTWLLSGRAAVVPLGTWRRLSLCWFAVCGFI
HLVIEGWFVLYYEDLLGDQAFLSQLWKEYAKGDSRYILGDNFTVCMETITACLWGPLSLWVVIAFLRQHPLRFIL
QLVVSVGQIYGDVLYFLTEHRDGFQHGELGHPLYFWFYFVFMNALWLVLPGVLVLDAVKHLTHAQSTLDAKATKA
KSKKN

FIGURE 888

GAATTCGGCACGAGG**ATG**ACGGAGCCGGGCGCCTCTCCCGAGGACCCTTGGGTCAAGGTGGAGTATGCCTACAGC
GACAACAGCCTGGACCCCGGGCTTTTTGTAGAAAGCACCCGCAAGGGGAGTGTAGTGTCCAGAGCTAATAGCATC
GGTTCCACCAGTGCCTCTTCTGTCCCCAACACAGATGATGAGGACAGTGATTACCACCAGGAGGCCTACAAGGAG
TCCTACAAAGACCGGCGGCGGCGCGCACACACTCAGGCTGAGCAGAAGAGGAGGGACGCCATCAAGAGAGGCTAT
GATGACCTTCAGACCATCGTCCCCACTTGCCAGCAGCAGGACTTCTCCATTGGCTCCCAAAAGCTCAGCAAAGCC
ATCGTTCTACAAAAGACCATTGACTACATTCAGTTTTTGCACAAGGAGAAGAAAAAGCAGGAGGAGGAGGTGTCC
ACGTTACGCAAGGATGTCACCGCCCTAAAGATCATGAAAGTGAACTATGAGCAGATTGTGAAGGCACACCAGGAC
AACCCCCATGAAGGGGAGGACCAGGTCTCTGACCAGGTCAAGTTCAACGTGTTTCAAGGCATCATGGTTTCCCTG
TTCCAGTCCTTCAATGCCTCCATCTCAGTGGCCAGCTTCCAGGAGCTGTCAGCGTGTGTCTTCAGCTGGATCGAG
GAGCACTGTAAGCCTCAGACCCTGCGGGAGATTGTGATTGGCGTCCTGCACCAATTGAAAAACCAGCTTTAC**TGA**

CCGGTTCTTGGAAACCTGGAGAACAGCCAACAAGAGGCCCTTGAATCTCTACGTGGCCACTGAACTGCTGGGCCC
GGGAGACTGGTCTACAACACCACACACTGGACAGCTGGTCTCTACTTGGTGTGTGGTTTCTCCCAGCCCCATTTT
CTCTACAGCGGAGCCGCGGTGTGTGTTGTGTGAAAGCTTCTGATTAATTTATTATATTGACGATAAAACTCAAAC
CTACCCAGCCTTCCCCCCACTCCATGGAAGTCCTTGGGATGGGCGTCTGCTCTGGACACCCCAAAGAGCTCCTGC
CCTCTCAGCCCTTTATTCAAGCCTCAGATTTCTGCTCATGATCTACATAGATTTGGAAACTGTTTTCCTCTGTTG
TGGTCTCTTGGGCAACATTTGTGGCCCAAGTTTGGGCAACATTTGGCCCAAGTTTGGGCATTGTGGGAGTAGCTG
TATGGGAGAAAAAGAGTAAGAGGAAATATTCCCACAGCCATGAAGGGTGAAAGGGCACCTTGTGCCTAGACTAGG
GCTGGCTGGTCAGTCCCAGGTGAGGACAAGGGCTTTCTGGCCATCTCAGGGAGGGGGCACCAGGTTCCTCCCCTC
ACCCCATATTCCATCACCTTCCTCCTCTGCTCTGGGTGGTAAGGGAAGCCCTCCCGGTTCCCACAGGCTATGATG
CTGCATGGCAGAGGCAGGTATAACACAGCACTACATATTGGAAATTTTTTATTTTTCTAAATACCAATGCAGTTT
TGCTACGGTTACAATTTTGAAATATTAACTGAGCCTCAAAATCACCCTTTCTGTCAAGCATATCTTGGCCTCTCC
CATGTCTCAGTGTTGCCTGCATTTCTCCCAGGACTTGGGGGTGGGGTGAAAAGCGTACAAAAGATACTTAAAAGG
GCTCCTGGGGTACACAAGCCCAGCAGGTCCTGAGTGAAGCCGTGGGCCCTCCAAATGCTCGTTTTATAGCAACCT
CTCTCTACCCTAGTTCTCCAAATTCACTTCTGCCTTCCTCAGGTTTGATATCTGGCAGGTTTGACTATCCAGAGG
AAATTAAATATTTTTATATAAAATTAAATTATAATAAATATTGCCAAATGCTAAAAAAAAAAAAAAAAAA

FIGURE 889

MTEPGASPEDPWVKVEYAYSDNSLDPGLFVESTRKGSVVSRANSIGSTSASSVPNTDDEDSDYHQEAYKESYKDR
RRRAHTQAEQKRRDAIKRGYDDLQTIVPTCQQQDFSIGSQKLSKAIVLQKTIDYIQFLHKEKKKQEEEVSTLRKD
VTALKIMKVNYEQIVKAHQDNPHEGEDQVSDQVKFNVFQGIMVSLFQSFNASISVASFQELSACVFSWIEEHCKP
QTLREIVIGVLHQLKNQLY

FIGURE 890

ATGGTGAAAATGACAAAGTCCAAAACTTTCCAAGCGTATCTGCCGAACTGTCACCGAACGTACAGCTGTATCCAC
TGCAGAGCACACCTGGCCAATCATGACGAGCTCATCTCCAAGTCCTTTCAGGGGAGCCAGGGACGCGCCTACCTC
TTCAATTCCGTGGTGAACGTGGGCTGCGGCCCTGCAGAGGAGAGGGTCCTTCTCACCGGGCTGCATGCGGTTGCC
GACATCTACTGCGAGAACTGCAAGACCACGCTCGGGTGGAAATACGAGCATGCCTTTGAGAGCAGTCAGAAATAT
AAGGAAGGAAAATTCATCATTGAGCTTGCTCATATGATCAAAGACAATGGCTGGGAG**TAA**

FIGURE 891

MVKMTKSKTFQAYLPNCHRTYSCIHCRAHLANHDELISKSFQGSQGRAYLFNSVVNVGCGPAEERVLLTGLHAVA
DIYCENCKTTLGWKYEHAFESSQKYKEGKFIIELAHMIKDNGWE

FIGURE 892

GCGGCCGCCGTGGCCAGGCAACCTATGGGTACCACCGGGTTCTCGCGGGTCTTGCGAACGAACTTTTCCTTGAAA
CTCTCTGGATTCCTGTAAACAGTGGGGCTCAGCCCCTCAATGACTGGAGGCTTCGATGGTTCAAAGGGGACCTCC
GGAATCACAGGGCCGGGAGTCGCCATGTCCGGGCCACAGCAGCAGGAGAAAATCGGGACTCCGACCTCAGCCTCC
CGGTGAAGGTCATGAAAGGGGCGGGGAAACGAATAAATTGAGCCTTGTACGCAGGCGCAAATGCTCGTTGCATCC
TGGGAGTCGTAGTGCTCAGCACGGTAGTGCTACAAAAGGACTACATTTCCCCAAATGCCCGCAAAGCCTTGTGCA
CGCCTTCCGGAAGGAGTTTGTTACACGAGGTCTGAGAGACAGAGGCAGCGTGTTTGAGCTGCTGGTGCGGTGGTC
AGCGCG**ATG**CCCAAGGCCAAGGGCAAAACCCGGAGGCAGAAGTTTGGTTACAGTGTCAACCGAAAGCGTCTGAAC
CGGAATGCTCGACGGAAGGCAGCGCGCGGAATCGAATGCTCCCACATCCGACATGCCTGGGACCACGCTAAATCG
GTACGGCAGAACCTGGCCGAGATGGGGTTGGCTGTGGACCCCAACAGGGCGGTGCCCCTCCGTAAGAGAAAGGTG
AAGGCCATGGAGGTGGACATAGAGGAGAGGCCTAAAGAGCTTGTACGGAAGCCCTATGTGCTGAATGACCTGGAG
GCAGAAGCCAGCCTTCCAGAAAAGAAAGGAAATACTCTGTCTCGGGACCTCATTGACTATGTACGCTACATGGTA
GAGAACCACGGGGAGGACTATAAGGCCATGGCCCGTGATGAGAAGAATTACTATCAAGATACCCCAAAACAGATT
CGGAGTAAGATCAACGTCTATAAACGCTTTTACCCAGCAGAGTGGCAAGACTTCCTCGATTCTTTGCAGAAGAGG
AAGATGGAGGTGGAG**TAA**CTGGTTTACATCACAGCTGCCCCAGGCTGAGGCGTCCCCGGACCAGTGAAGCTGGA
GCCAGGGTGTAAGGCAAGGAGGTGCTGTGTGGCTCCAGAGGGGCTGGCCAGGTCCCATGGAATCAGAAGGTTACA
CACACACGTGCACACTCCCCGCTCTGGGGAAGGAACTGTTCTCAGAGGCTCCAATTTATATTCATCTGGGGGTTC
ACGGAAAAGCCAGAACCTGCTGTTTTCAGGGTGGGTGATGTAAATATAGTGTGTACATAATAAAGCAAATATATT
TTAAA

FIGURE 893

MPKAKGKTRRQKFGYSVNRKRLNRNARRKAARGIECSHIRHAWDHAKSVRQNLAEMGLAVDPNRAVPLRKRKVKA
MEVDIEERPKELVRKPYVLNDLEAEASLPEKKGNTLSRDLIDYVRYMVENHGEDYKAMARDEKNYYQDTPKQIRS
KINVYKRFYPAEWQDFLDSLQKRKMEVE

FIGURE 894

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GGAATAGGTTAGTTTCAGACAAGCCTGCTTGCCGGAGCTCAGCAGACACCAGGCCTTCCGGGCAGGCCTGGCCCA
CCGTGGGCCTCAGAGCTGCTGCTGGGGCATTCAGAACCGGCTCTCCATTGGCATTGGGACCAGAGACCCCGCAAG
TGGCCTGTTTGCCTGGACATCCACCTGTACGTCCCCAGGTTTCGGGAGGCCCAGGGGCGATGCCAGACCCCGCGG
CGCACCTGCCCTTCTTCTACGGCAGCATCTCGCGTGCCGAGGCCGAGGAGCACCTGAAGCTGGCGGGCATGGCGG
ACGGGCTCTTCCTGCTGCGCCAGTGCCTGCGCTCGCTGGGCGGCTATGTGCTGTCGCTCGTGCACGATGTGCGCT
TCCACCACTTTCCCATCGAGCGCCAGCTCAACGGCACCTACGCCATTGCCGGCGGCAAAGCGCACTGTGGACCGG
CAGAGCTCTGCGAGTTCTACTCGCGCGACCCCGACGGGCTGCCCTGCAACCTGCGCAAGCCGTGCAACCGGCCGT
CGGGCCTCGAGCCGCAGCCGGGGGTCTTCGACTGCCTGCGAGACGCCATGGTGCGTGACTACGTGCGCCAGACGT
GGAAGCTGGAGGGCGAGGCCCTGGAGCAGGCCATCATCAGCCAGGCCCCGCAGGTGGAGAAGCTCATTGCTACGA
CGGCCCACGAGCGGATGCCCTGGTACCACAGCAGCCTGACGCGTGAGGAGGCCGAGCGCAAACTTTACTCTGGGG
CGCAGACCGACGGCAAGTTCCTGCTGAGGCCGCGGAAGGAGCAGGGCACATACGCCCTGTCCCTCATCTATGGGA
AGACGGTGTACCACTACCTCATCAGCCAAGACAAGGCGGGCAAGTACTGCATTCCCGAGGGCACCAAGTTTGACA
CGCTCTGGCAGCTGGTGGAGTATCTGAAGCTGAAGGCGGACGGGCTCATCTACTGCCTGAAGGAGGCCTGCCCCA
ACAGCAGTGCCAGCAACGCCTCAGGGGCTGCTGCTCCCACACTCCCAGCCCACCCATCCACGTTGACTCATCCTC
AGAGACGAATCGACACCCTCAACTCAGATGGATACACCCCTGAGCCAGCACGCATAACGTCCCCAGACAAACCGC
GGCCGATGCCCATGGACACGAGCGTGTATGAGAGCCCCTACAGCGACCCAGAGGAGCTCAAGGACAAGAAGCTCT
TCCTGAAGCGCGATAACCTCCTCATAGCTGACATTGAACTTGGCTGCGGCAACTTTGGCTCAGTGCGCCAGGGCG
TGTACCGCATGCGCAAGAAGCAGATCGACGTGGCCATCAAGGTGCTGAAGCAGGGCACGGAGAAGGCAGACACGG
AAGAGATGATGCGCGAGGCGCAGATCATGCACCAGCTGGACAACCCCTACATCGTGCGGCTCATTGGCGTCTGCC
AGGCCGAGGCCCTCATGCTGGTCATGGAGATGGCTGGGGGCGGGCCGCTGCACAAGTTCCTGGTCGGCAAGAGGG
AGGAGATCCCTGTGAGCAATGTGGCCGAGCTGCTGCACCAGGTGTCCATGGGGATGAAGTACCTGGAGGAGAAGA
ACTTTGTGCACCGTGACCTGGCGGCCCGCAACGTCCTGCTGGTTAACCGGCACTACGCCAAGATCAGCGACTTTG
GCCTCTCCAAAGCACTGGGTGCCGACGACAGCTACTACACTGCCCGCTCAGCAGGGAAGTGGCCGCTCAAGTGGT
ACGCACCCGAATGCATCAACTTCCGCAAGTTCTCCAGCCGCAGCGATGTCTGGAGCTATGGGGTCACCATGTGGG
AGGCCTTGTCCTACGGCCAGAAGCCCTACAAGAAGATGAAAGGGCCGGAGGTCATGGCCTTCATCGAGCAGGGCA
AGCGGATGGAGTGCCCACCAGAGTGTCCACCCGAACTGTACGCACTCATGAGTGACTGCTGGATCTACAAGTGGG
AGGATCGCCCCGACTTCCTGACCGTGGAGCAGCGCATGCGAGCCTGTTACTACAGCCTGGCCAGCAAGGTGGAAG
GGCCCCCAGGCAGCACACAGAAGGCTGAGGCTGCCTGTGCCTGAGCTCCCGCTGCCCAGGGGAGCCCTCCACGCC
GGCTCTTCCCCACCCTCAGCCCCACCCCAGGTCCTGCAGTCTGGCTGAGCCCTGCTTGGTTGTCTCCACACACAG
CTGGGCTGTGGTAGGGGGTGTCTCAGGCCACACCGGCCTTGCATTGCCTGCCTGGCCCCCTGTCCTCTCTGGCTG
GGGAGCAGGGAGGTCCGGGAGGGTGCGGCTGTGCAGCCTGTCCTGGGCTGGTGGCTCCCGGAGGGCCCTGAGCTG
AGGGCATTGCTTACACGGATGCCTTCCCCTGGGCCCTGACATTGGAGCCTGGGCATCCTCAGGTGGTCAGGCGTA
GATCACCAGAATAAACCCAGCTTCCCTCTTGAAAAAAAAAAAAAAAAAAAAAACC
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FIGURE 895

ACACGGACCAAGGAGTCTAACACGTGCGCGAGTCGGGGGCTCGCACGAAAGCCGCCGTGGCGCAATGAAGGTGAA
GGCCGGCGCGCTCGCCGGCCGAGGTGGGATCCCGAGGCCTCTCCAGTCCGCCGAGGGCGCACCACCGGCCCGTCT
CGCCCGCCGCGCCGGGGAGGTGGAGCACGAGCGCACGTGTTAGGACCCGAAAG**ATG**GTGAACTATGCCTGGGCAG
GGCGAAGCCAGAGGAAACTCTGGTGGAGGTCCGTAGCGGTCCTGACGTGCAAATCGGTCGTCCGACCTGGGTATA
GGGGCGGGCTCCAGGCGAGGCGGTCGACGCTCCTGAAAACTTGCGCGCGCGCTCGCGCCACTGCGCCCGGAGCGA
TGAAGATGGTCGCGCCCTGGACGCGGTTCTACTCCAACAGCTGCTGCTTGTGCTGCCATGTCCGCACCGGCACCA
TCCTGCTCGGCGTCTGGTATCTGATCATCAATGCTGTGGTACTGTTGATTTTATTGAGTGCCCTGGCTGATCCGG
ATCAGTATAACTTTTCAAGTTCTGAACTGGGAGGTGACTTTGAGTTCATGGATGATGCCAACATGTGCATTGCCA
TTGCGATTTCTCTTCTCATGATCCTGATATGTGCTATGGCTACTTACGGAGCGTACAAGCAACGCGCAGCCTGGA
TCATCCCATTCTTCTGTTACCAGATCTTTGACTTTGCCCTGAACATGTTGGTTGCAATCACTGTGCTTATTTATC
CAAACTCCATTCAGGAATACATACGGCAACTGCCTCCTAATTTTCCCTACAGAGATGATGTCATGTCAGTGAATC
CTACCTGTTTGGTCCTTATTATTCTTCTGTTTATTAGCATTATCTTGACTTTTAAGGGTTACTTGATTAGCTGTG
TTTGGAACTGCTACCGATACATCAATGGTAGGAACTCCTCTGATGTCCTGGTTTATGTTACCAGCAATGACACTA
CGGTGCTGCTACCCCCGTATGATGATGCCACTGTGAATGGTGCTGCCAAGGAGCCACCGCCACCTTACGTGTCTG
CC**TAA**GCCTTCAAGTGGGCGGAGCTGAGGGCAGCAGCTTGACTTTGCAGACATCTGAGCAATAGTTCTGTTATTT
CACTTTTGCCATGAGCCTCTCTGAGCTTGTTTGTTGCTGAAATGCTACTTTTTAAAATTTAGATGTTAGATTGAA
AACTGTAGTTTTCAACATATGCTTTGCTAGAACACTGTGATAGATTAACTGTAGAATTCTTCCTGTACGATTGGG
GATATAATGGGCTTCACTAACCTTCCCTAGGCATTGAAACTTCCCCCAAATCTGATGGACCTAGAAGTCTGCTTT
TGTACCTGCTGGGCCCCAAAGTTGGGCATTTTTCTCTCTGTTCCCTCTCTTTTGAAAATGTAAAATAAAACCAAA
AATAGACAACTTTTTCTTCAGCCATTCCAGCATAGAGAACAAAACCTTATGGAAACAGGAATGTCAATTGTGTAA
TCATTGTTCTAATTAGGTAAATAGAAGTCCTTATGTATGTGTTACAAGAATTTCCCCCACAACATCCTTTATGAC
TGAAGTTCAATGACAGTTTGTGTTTGGGTGGTAAAGGATTTTCTCCATGGCCTGAATTAAGACCATTAGAAAGCA
CCAGGCCGTGGGAGCAGTGACCATCTGCTGACTGTTCTTGTGGATCTTGTGTCCAGGGACATGGGGTGACATGCC
TCGTATGTGTTAGAGGGTGGAATGGATGTGTTTGGCGCTGCATGGGATCTGGTGCCCCTCTTCTCCTGGATTCAC
ATCCCCACCCAGGGCCCGCTTTTACTAAGTGTTCTGCCCTAGATTGGTTCAAGGAGGTCATCCAACTGACTTTAT
CAAGTGGAATTGGGATATATTTGATATACTTCTGCCTAACAACATGGAAAAGGGTTTTCTTTTCCCTGCAAGCTA
CATCCTACTGCTTTGAACTTCCAAGTATGTCTAGTCACCTTTTAAAATGTAAACATTTTCAGAAAAATGAGGATT
GCCTTCCTTGTATGCGCTTTTTACCTTGACTACCTGAATTGCAAGGGATTTTTATATATTCATATGTTACAAAGT
CAGCAACTCTCCTGTTGGTTCATTATTGAATGTGCTGTAAATTAAGTTGTTTGCAATTAAAACAAGGTTTGCCCA
CAAAAAAAAA

FIGURE 896

MVNYAWAGRSQRKLWWRSVAVLTCKSVVRPGYRGGLQARRSTLLKTCARARATAPGAMKMVAPWTRFYSNSCCLC
CHVRTGTILLGVWYLIINAVVLLILLSALADPDQYNFSSSELGGDFEFMDDANMCIAIAISLLMILICAMATYGA
YKQRAAWIIPFFCYQIFDFALNMLVAITVLIYPNSIQEYIRQLPPNFPYRDDVMSVNPTCLVLIILLFISIILTF
KGYLISCVWNCYRYINGRNSSDVLVYVTSNDTTVLLPPYDDATVNGAAKEPPPPYVSA

FIGURE 897

GGCACGAGGCCGAGTTGCG**ATG**CTGTACTTCTCTTTGTTTTGGGCGGCTCGGCCTCTGCAGAGATGTGGGCAGCT
GGTCAGGATGGCCATTCGGGCTCAGCACAGCAACGCAGCCCAGACTCAGACTGGGGAAGCAAACAGGGGCTGGAC
AGGCCAGGAGAGCCTGTCGGACAGTGATCCTGAGATGTGGGAGTTGCTGCAGAGGGAGAAGGACAGGCAGTGTCG
TGGCCTGGAGCTCATTGCCTCAGAGAACTTCTGCAGCCGAGCTGCGCTGGAGGCCCTGGGGTCCTGTCTGAACAA
CAAGTACTCGGAGGGTTATCCTGGCAAGAGATACTATGGGGGAGCAGAGGTGGTGGATGAAATTGAGCTGCTGTG
CCAGCGCCGGGCCTTGGAAGCCTTTGACCTGGATCCTGCACAGTGGGGAGTCAATGTCCAGCCCTACTCCGGGTC
CCCAGCCAACCTGGCCGTCTACACAGCCCTTCTGCAACCTCACGACCGGATCATGGGGCTGGACCTGCCCGATGG
GGGCCATCTCACCCACGGCTACATGTCTGACGTCAAGCGGATATCAGCCACGTCCATCTTCTTCGAGTCTATGCC
CTATAAGCTCAACCCCAAAACTGGCCTCATTGACTACAACCAGCTGGCACTGACTGCTCGACTTTTCCGGCCACG
GCTCATCATAGCTGGCACCAGCGCCTATGCTCGCCTCATTGACTACGCCCGCATGAGAGAGGTGTGTGATGAAGT
CAAAGCACACCTGCTGGCAGACATGGCCCACATCAGTGGCCTGGTGGCTGCCAAGGTGATTCCCTCGCCTTTCAA
GCACGCGGACATCGTCACCACCACTACTCACAAGACTCTTCGAGGGGCCAGGTCAGGGCTCATCTTCTACCGGAA
AGGGGTGAAGGCTGTGGACCCCAAGACTGGCCGGGAGATCCCTTACACATTTGAGGACCGAATCAACTTTGCCGT
GTTCCCATCCCTGCAGGGGGGCCCCCACAATCATGCCATTGCTGCAGTAGCTGTGGCCCTAAAGCAGGCCTGCAC
CCCCATGTTCCGGGAGTACTCCCTGCAGGTTCTGAAGAATGCTCGGGCCATGGCAGATGCCCTGCTAGAGCGAGG
CTACTCACTGGTATCAGGTGGTACTGACAACCACCTGGTGCTGGTGGACCTGCGGCCCAAGGGCCTGGATGGAGC
TCGGGCTGAGCGGGTGCTAGAGCTTGTATCCATCACTGCCAACAAGAACACCTGTCCTGGAGACCGAAGTGCCAT
CACACCGGGCGGCCTGCGGCTTGGGGCCCCAGCCTTAACTTCTCGACAGTTCCGTGAGGATGACTTCCGGAGAGT
TGTGGACTTTATAGATGAAGGGGTCAACATTGGCTTAGAGGTGAAGAGCAAGACTGCCAAGCTCCAGGATTTCAA
ATCCTTCCTGCTTAAGGACTCAGAAACAAGTCAGCGTCTGGCCAACCTCAGGCAACGGGTGGAGCAGTTTGCCAG
GGCCTTCCCCATGCCTGGTTTTGATGAGCAT**TGA**AGGCACCTGGGAAATGAGGCCCACAGACTCAAAGTTACTCT
CCTTCCCCCTACCTGGGCCAGTGAAATAGAAAGCCTTTCTATTTTTTGGTGCGGGAGGGAAGACCTCTCACTTAG
GGCAAGAGCCAGGTATAGTCTCCCTTCCCAGAATTTGTAACTGAGAAGATCTTTTCTTTTTCCTTTTTTTGGTAA
CAAGACTTAGAAGGAGGGCCCAGGCACTTTCTGTTTGAACCCCTGTCATGATCACAGTGTCAGAGACGCGTCCTC
TTTCTTGGGGAAGTTGAGGAGTGCCCTTCAGAGCCAGTAGCAGGCAGGGGTGGGTAGGCACCCTCCTTCCTGTTT
TTATCTAATAAAATGCTAACCTGCCCTGAGTTTCCATTACTGTGGGTGGGGTTCCCCTGGGCCAAACAGTGATTT
GTCTCCCTCAATGTGTACACCGCTCCGCTCCCACCACCGCTACCACAAGGACCCCCGGGGCTGCAGCCTCCTCTT
TCTGTCTCTGATCAGAGCCGACACCAGACGTGATTAGCAGGCGCAGCAAATTCAATTTGTTAAATGAAATTGTAT
TTTGAAAAAAAAAAAAAAAAAAA

FIGURE 898

MLYFSLFWAARPLQRCGQLVRMAIRAQHSNAAQTQTGEANRGWTGQESLSDSDPEMWELLQREKDRQCRGLELIA
SENFCSRAALEALGSCLNNKYSEGYPGKRYYGGAEVVDEIELLCQRRALEAFDLDPAQWGVNVQPYSGSPANLAV
YTALLQPHDRIMGLDLPDGGHLTHGYMSDVKRISATSIFFESMPYKLNPKTGLIDYNQLALTARLFRPRLIIAGT
SAYARLIDYARMREVCDEVKAHLLADMAHISGLVAAKVIPSPFKHADIVTTTTHKTLRGARSGLIFYRKGVKAVD
PKTGREIPYTFEDRINFAVFPSLQGGPHNHAIAAVAVALKQACTPMFREYSLQVLKNARAMADALLERGYSLVSG
GTDNHLVLVDLRPKGLDGARAERVLELVSITANKNTCPGDRSAITPGGLRLGAPALTSRQFREDDFRRVVDFIDE
GVNIGLEVKSKTAKLQDFKSFLLKDSETSQRLANLRQRVEQFARAFPMPGFDEH

FIGURE 899

GGCACGAGGCTCTACAATCTGTGGCCTCAGCCCTTGCCAACTCTGCCTCTTCCCCCGCTGACTGGGCCTCTGCAG
AGATGTGGGCAGCTGGTCAGGATGGCCATTCGGGCTCAGCACAGCAACGCAGCCCAGACTCAGACTGGGGAAGCA
AACAGGGGCTGGACAGGCCAGGAGAGCCTGTCGGACAGTGATCCTGAGATGTGGGAGTTGCTGCAGAGGGAGAAG
GACAGGCAGTGTCGTGGCCTGGAGCTCATTGCCTCAGAGATACTATGGGGGAGCAGAGGTGGTGGATGAAATTGA
GGTGCTGTGCCAGCGCCGGGCCTTGGAAGCCTTTGACCTGGATCCTGCACAGTGGGGAGTCAATGTCCAGCCCTA
CTCCGGGTCCCCAGCCAACCTGGCCGTCTACACAGCCCTTCTGCAACCTCACGACCGGATCATGGGGCTGGACCT
GCCCGATGGGGGCCATCTCACCCACGGCTACATGTCTGACGTCAAGCGGATATCAGCCACGTCCATCTTCTTCGA
GTCTATGCCCTATAAGCTCAACGGCTTTAGCTGTTTGTGTGTCTGTCCAGCCCAAAACTGGCCTCATTGACTACA
ACCAGCTGGCACTGACTGCTCGACTTTTCCGGCCACGGCTCATCATAGCTGGCACCAGCGCCTATGCTCGCCTCA
TTGACTACGCCCGCATGAGAGAGGTGTGTGATGAAGTCAAAGCACACCTGCTGGCAGACATGGCCCACATCAGTG
GCCTGGTGGCTGCCAAGGTGATTCCCTCGCCTTTCAAGCACGCGGACATCGTCACCACCACTACTCACAAGACTC
TTCGAGGGGCCAGGTCAGGGCTCATCTTCTACCGGAAAGGGGTGAAGGCTGTGGACCCCAAGACTGGCCGGGAGA
TCCCTTACACATTTGAGGACCGAATCAACTTTGCCGTGTTCCCATCCCTGCAGGGGGGCCCCCACAATCATGCCA
TTGCTGCAGTAGCTGTGGCCCTAAAGCAGGCCTGCACCCCCATGTTCCGGGAGTACTCCCTGCAGGTTCTGAAGA
ATGCTCGGGCCATGGCAGATGCCCTGCTAGAGCGAGGCTACTCACTGGTATCAGGTGGTACTGACAACCACCTGG
TGCTGGTGGACCTGCGGCCCAAGGGCCTGGATGGAGCTCGGGCTGAGCGGGTGCTAGAGCTTGTATCCATCACTG
CCAACAAGAACACCTGTCCTGGAGACCGAAGTGCCATCACACCGGGCGGCCTGCGGCTTGGGGCCCCAGCCTTAA
CTTCTCGACAGTTCCGTGAGGATGACTTCCGGAGAGTTGTGGACTTTATAGATGAAGGGGTCAACATTGGCTTAG
AGGTGAAGAGCAAGACTGCCAAGCTCCAGGATTTCAAATCCTTCCTGCTTAAGGACTCAGAAACAAGTCAGCGTC
TGGCCAACCTCAGGCAACGGGTGGAGCAGTTTGCCAGGGCCTTCCCCATGCCTGGTTTTGATGAGCATTGAAGGC
ACCTGGGAAATGAGGCCCACAGACTCAAAGTTACTCTCCTTCCCCCTACCTGGGCCAGTGAAATAGAAAGCCTTT
CTATTTTTTGGTGCGGGAGGGAAGACCTCTCACTTAGGGCAAGAGCCAGGTATAGTCTCCCTTCCCAGAATTTGT
AACTGAGAAGATCTTTTCTTTTTCCTTTTTTTGGTAACAAGACTTAGAAGGAGGGCCCAGGCACTTTCTGTTTGA
ACCCCTGTCATGATCACAGTGTCAGAGACGCGTCCTCTTTCTTGGGGAAGTTGAGGAGTGCCCTTCAGAGCCAGT
AGCAGGCAGGGGTGGGTAGGCACCCTCCTTCCTGTTTTTATCTAATAAAATGCTAACCTGCCCTGAGTTTCCATT
ACTGTGGGTGGGGTTCCCCTGGGCCAAACAGTGAAAAAAAAAAAAAAAAAAAAACTCGAGACTAGTTCTCTCCTGA
AAACTGGAGGGCCTTCAAGGCTCTCATCGCTGCTCAGTACAGCGGGGCTCAGGTCCGCGTGCTCTCCGCACCACC
CCACTTCCATTTTGGCCAAACCAACCGCACCCCTGAATTTCTCCGCAAATTTCCTGCCGGCAAGGTCCCAGCATT
TGAGGGTGATGATGGATTCTGTGTGTTTGAGAGCAACGCCATTGCCTACTATGTGAGCAATGAGGAGCTGCGGGG
AAGTACTCCAGAGGCAGCAGCCCAGGTGGTGCAGTGGGTGAGCTTTGCTGATTCCGATATAGTGCCCCCAGCCAG
TACCTGGGTGTTCCCCACCTTGGGCATC**ATG**CACCACAACAAACAGGCCACTGAGAATGCAAAGGAGGAAGTGAG
GCGAATTCTGGGGCTGCTGGATGCTTACTTGAAGACGAGGACTTTTCTGGTGGGCGAACGAGTGACATTGGCTGA
CATCACAGTTGTCTGCACCCTGTTGTGGCTCTATAAGCAGGTTCTAGAGCCTTCTTTCCGCCAGGCCTTTCCCAA
TACCAACCGCTGGTTCCTCACCTGCATTAACCAGCCCCAGTTCCGGGCTGTCTTGGGCGAAGTGAAACTGTGTGA
GAAGATGGCCCAGTTTGATGCTAAAAGTTTGCAGAGACCCAACCTAAAAAGGACACACCACGGAAAGAGAAGGG
TTCACGGGAAGAGAAGCAGAAGCCCCAGGCTGAGCGGAAGGAGGAGAAAAAGGCGGCTGCCCCTGCTCCTGAGGA
GGAGATGGATGAATGTGAGCAGGCGCTGGCTGCTGAGCCCAAGGCCAAGGACCCCTTCGCTCACCTGCCCAAGAG
TACCTTTGTGTTGGATGAATTTAAGCGCAAGTACTCCAATGAGGACACACTCTCTGTGGCACTGCCATATTTCTG
GGAGCACTTTGATAAGGACGGCTGGTCCCTGTGGTACTCAGAGTATCGCTTCCCTGAAGAACTCACTCAGACCTT
CATGAGCTGCAATCTCATCACTGGAATGTTCCAGCGACTGGACAAGCTGAGGAAGAATGCCTTCGCCAGTGTCAT
CCTTTTTGGAACCAACAATAGCAGCTCCATTTCTGGAGTCTGGGTCTTCCGAGGCCAGGAGCTTGCCTTTCCGCT
GAGTCCAGATTGGCAGGTGGACTACGAGTCATACACATGGCGGAAACTGGATCCTGGCAGCGAGGAGACCCAGAC
GCTGGTTCGAGAGTACTTTTCCTGGGAGGGGGCCTTCCAGCATGTGGGCAAAGCCTTCAATCAGGGCAAGATCTT
CAAG**TGA**ACATCTCTTGCCATCACCTAGCTGCCTGCACCTGCCCTTCAGGGAGATGGGGGTCATTAAAGGAAACT
GAACATTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 900

MHHNKQATENAKEEVRRILGLLDAYLKTRTFLVGERVTLADITVVCTLLWLYKQVLEPSFRQAFPNTNRWFLTCI
NQPQFRAVLGEVKLCEKMAQFDAKKFAETQPKKDTPRKEKGSREEKQKPQAERKEEKKAAAPAPEEEMDECEQAL
AAEPKAKDPFAHLPKSTFVLDEFKRKYSNEDTLSVALPYFWEHFDKDGWSLWYSEYRFPEELTQTFMSCNLITGM
FQRLDKLRKNAFASVILFGTNNSSSISGVWVFRGQELAFPLSPDWQVDYESYTWRKLDPGSEETQTLVREYFSWE
GAFQHVGKAFNQGKIFK

FIGURE 901A

CAAGCCAATTATGGCTCCCTTTCCCAATGGTAGTTTGTGAATGGCTTTAATTCGCCAGGATCTTATAAAACAAAT
GCTGCTGCT**ATG**AATATGGGTCGACCATTCCAAAAAAATCGTGTGAAGCCTCAGTTTAGGTCATCTGGTGGTTCA
GAACACTCAACAGAGGGCTCTGTATCCTTGGGGGATGGACAGTTGAACAGATATAGTTCAAGAAACTTTCCAGCT
GAACGGCATAACCCCACAGTAACTGGGCATCAGGAGCAAACTTACCTTCAGAAGGAGACTTCCACTTTGCAGGTG
GAACAGAATGGGGACTATGGTAGGGGCAGGAGAACTCTCTTCAGAGGTCGAAGACGACGAGAAGATGACAGGATC
TCAAGACCTCATCCTTCAACAGCTGAATCAAAGGCTCCAACACCAAAGTTTGACTTATTAGCCTCAAATTTTCCA
CCTTTACCTGGAAGTTCATCAAGAATGCCAGGTGAACTCGTTTGGAGAATAGGATGTCTGATGTTGTTAAAGGTG
TCTACAAAGAAAAGGATAATGAAGAGTTGACAATTAGTTGCCCAGTGCCTGCAGATGAGCAGACAGAATGCACTT
CTGCCCAGCAACTCAATATGAGTACCAGTTCTCCATGTGCTGCTGAGCTTACTGCATTAAGCACAACTCAGCAAG
AAAAGGATCTAATAGAAGATTCCTCTGTTCAGAAGGATGGTCTCAATCAGACAACTATACCAGTTTCTCCTCCAA
GTACTACAAAGCCATCGAGGGCAAGTACTGCTTCACCATGTAATAATAACATAAATGCAGCTACAGCTGTGGCTC
TACAGGAACCCCGAAAGTTAAGTTATGCTGAAGTGTGCCAGAAGCCCCCTAAAGAGCCATCTTCAGTTCTTGTGC
AGCCACTACGGGAACTTCGCTCCAATGTGGTGTCTCCCACCAAAAATGAAGACAATGGAGCTCCTGAGAACTCCG
TTGAGAAACCACATGAGAAGCCAGAAGCAAGGGCTAGTAAGGATTATTCTGGCTTCCGAGGCAATATAATCCCCA
GGGGAGCAGCAGGAAAAATCAGGGAACAGAGACGCCAGTTTAGCCATAGGGCTATACCTCAGGGAGTGACTCGAC
GTAATGGCAAAGAGCAATATGTGCCACCCAGATCACCAAAG**TAA**AAAACAACAAAACTATTCAAAAACTTCACTC
TCTTCCCATTAAACTTGAACTGTGGCTATATTGAACTGTTTTGGAGGGGAGGGGGTAGCCAGGAAGGAAACAAGA
GAAAGTACGTCCATTTCATTATGGATTTTGGAGTTGTGAGTGATAGGATCCCAAAATTCATCTCTAATGTGGTTT
TTAAATGCTGGAGGATTCCAATCAATATAAATATATATATATATACACACACATATATAAAAAGTATAATTTT
TCTATTTTTGTTTTTGGTTTTAATTTGCAGAGATTTGCTGCCAGGAATCAATTTTGAGGGTTCAGATTTAGCTTG
GAAGAAAAAAAGAAACATACATCCTTCAGTATAGGAGATGAGGGAATGAGAGAAAATATTTTTTGAAGAAGCAT
TTCTGTAAAATTAGAAATTACTTTTTTTAATCTATTTAAAGTTTGGCTTGAAGAATGCCATCTCTGACTATATGG
CCTTGTATTGCAAAGCAGATCAGTGGCTGGGGTGCCTGTTGTGGGTGTGAGTGTGTACAAGAGCGATTGAAGCCA
AATCTGTTGTCATGTTAGTAAATGATTTGAAAACTGAATGTAATACTTGAGTAGATTTTTTTTTCTAGTTTGAAA
TTTAGTCTGTCTTTTTGACCTTACTAATATTTCATTTAACAAGTTGTAAAACTCTGATTGTACTTAGAGATGTGA
CTACCAATCAGTTTGATACTCAAGGAAAGGGGGTTATTCAAGAAATTGAAAATTTCATCTTGGACCTCAGTGCAT
CGGTCAAATGGATTTCAGAGGTTTAAACTTCCCTGTGATTCCCCTGAATACCCCCAAAATGAGAAACAAAATTT
TTTTTCTTACTCCATTTGTTACTCTCTGTTCTTTGACTGCCCACCCACAGAAAGCAAAATAACCAACTACCTAC
TCAATTGTGTGTTTGTAATTGCTTTGAGCAGTCTAGTCAAATCATATAAATTGTTCTAAATTTCAGAATTGAACA
TTGAAGTATTAACTCTTCTGTTCACACATTTAGAATTTTAGCTCCCAAGATGGTAGGGCAGACTGACCGTACAGT
AATTTATTTGTCGTTAGTGTTAAAGATTAAGCATAGTAACTGACTCTTAAGTGTTAAATAATGTAGAAGTAAAAA
AATTTTTTTTAAAGGCTTAATTTGGGAGGGGGGACTTATTTCTGTTTACAGTGTATTACCTTCCTTCCCTCCTCT
TCTCCCCCCACACCCAACAAAATACAGTTTGGAATTCACTGAAACAGTACCAGCAAGTCATGAGATTTTTTAGTA
AAGATGAGAAAGATGGTTGAAGAAAATTAGTGCATAATTTCTCAGTGAATAAAGTTGTAGCTCTCATATACTAAA
TAGACAAGTTTACATGCTGTTATTTAGAAAATGACTAAAATATTAAAAACCGTGTTGTGTTAATCTGTTTTAAGT
CATACCATGTTCAGAGTTCTATGTAAGGTGGGTTTTATTTTTCTTTTAAGGGATAGTTTGTAATAGTAAGAACTG
TCCCATATGTTAGTAAATTACATATGTACAAATTGAAACTGTAAATTGTGAACACTGGAAAGCACCATTGTGACA
TAGAGTAAACATCTTAGTAATATATTAAAGTGAATGTAAATGGTGGTTAAAATTACATTACTGTGAAATTCATCT
TCCAACTCTAAGTTAAGCTTTGGAGATACATGTTAGTGGTTAACTGTTAAGAGCTTTGAAAACACTGCACATATC
TGTACAAGCCAGAATTACTATTTCTTTGACTTATTATTAGCTTGGCAGTTGCTTTTGATTTGATTGTTTTATGAC
ATGGTATACTACTATATTTACTCAGTTTGAAACTATTCATTTCTACACACTATTTTAAAAATTGCCTACTAGGT
GAAACATAACAATAAAACTACCTGTGCTGAAATTTGGGGGAAGTTTAGGTCCTTTAAAAAAACATATTAATCATT
GACTACATCTATGATAAAAGTGCTTATTTTGGTTTACTAAGATAATGCAGTTGGTGGAAATGATAAACGTTTTAA
GTGTTAACATCCTTTGAATGCGTTGGATTTCAGAGAATAAACATTTTGTAAAATCACTTGGTAAGGATTATAAA
CTTAATTACTGCACTTAAAATGAAACATTACTTTTTTTAAACAATGTGTCACAAATGTAGGTCTGTATTACTTGT
ATGCTTGTGTGACTTACTGTTAGTCCAGCTCTAAAAATTTAAAGGTTGTAATTGAAATACAAGAAAAGAGCCTTC
TTTTAGAAGAAAGCAAGTATATTTTTGCTTTTACTTCAAATGTTATTTAAAGTAGAAATTTAATTTGTAGATATA
ACCTTTAAAAATTTTCTCATTAAGACAATGTTTTTAATTTAATTTGCCTCATTACATCTAATAGTTCCCATTTGA

FIGURE 901B

TGGCATGTATAGGGAAGAGTGANNNNNNNNNNNNNNNNNNNNNNNNNNNNAATATTTATATATATTCACAGTATG
TATTTAGCATTTATTTTATTACAGCAGATTTAAAGTTTGTATCTAAATAATGCCTATGAGTTGTGTGAAGCTCTT
GGCTTTTTTCCAACGTTACTTTGTAACTAATGAGGGTGGATGTTCATTGTAGTTTATTTATTTGGTTCTTTAGAT
GGAGGAATTTAAAAAATCAAATTTTTCTCTTCACCTTTATGACTTGACATTTCCTTGATCTGTTGGAGGCTAAAA
GTAGGTATAAATGATATTGAATGTTGGGTATAGTGATACTCTGCCATAGTTCTTACTGCATGAAGAGAACAAGAG
TCACACAAGTTCACCACTTTGCACTTCATAGAGAAGGTACATAGAGACATTGCAAAACCTGTCTCCATTTGCTAT
CCTGATAATTAAGGTTTTCATAATACCTAGGGCCTGTCTCTGAGTAATTTTAATTTTGCCAAATACACTGACATT
TAAAATAGTGATCCATCTAAATTTTTTTCAGCTGGGTTTTGAGGAATATAAGAGCTTTCAATGATAAAGGTTTGT
TGTAGTTGTCTTATGTGCTGAATTTGCAGATGATCAGATGCTGTGCAGAATTCTGATTTATTTTTGTTTCCTAAA
ATTAAGATAGCTTGAATATTATTTCACATTCCTTTTTCTTTTTTAAATAAACAGGTTTGCTTTGGAAAGGCTTAA
TGATGGAATGTTAGCATCTTCACTAGGGTAAAGAAGAACAAAAAGAATGTTGCTGGAACGTAAAATAGTATTTAA
AAGTTAATGAACACTTCTCTAGTTTTCTTAGTTATGGCCTTAATAATTAGTCTCTTGGCTTAAATGTCCACTGGT
TTTACTTTGACACAGTTGAACAACACTGGGGTTAAGTCTCTGGTATTTAGGCTGGCAATATATATATTAACCATA
TTTTAAAGTACCAATTTTGTTTTTACAGAAAAGATAAAACTCAAAAGAGAACAGTGTATTCCTTCTGAGGGGCT
TTTATAAATTATTAACTATAATATATGATGGATTTTTTCCTAATTTTTTATATTTCCTTACAATTTTGGTGGCCA
TTAATTTAACTTTAGGCTTTTGGGCATATGCTAGTCTGAGCTTCCGAAAAGATACATATATGTTTCCCTTTTCAT
TAGCTGAATGAGGATATTTTAAGAAGTTGAAAGAGAATTTATTTTCAAGTTGTGAGTAAATCCTCCTTTGAAATT
CACCTGATTATTAGATAACTTAAAGTTTATTTTTAAAAGCTGACAACTTTTATGAATCTTCGAGTTGACAGTTC
CTAAAAGCGTAACTCAGATATTAATGGGCTGTGTATTAAATGGTTTTATTTTCAGTTTTGCAGCACAGAACACTG
TTGAAATATCCATATCAACTTGATTTTTTTAACCTAATTCAGGTGTCCTTTGCATCTCTTAAATGTTGGGGGTGG
GGGTCAGAGCCAGTTATCCGGCTTCTGTTTTGTCGATTGCTTAGATTTGTTCCTGTTGTCAAAACTGTTACCCCC
AAAATTGGTGTGACACATGCTCATGCATAAAATGTTAAAATGAGTACATCCTTGTATTTGTATTTGTTTTCAACA
TCGCCAAGGTGCTATGGGAAATTAACAAAATTAGAAAAAAAATAAAATTATTAAAAAGCAGAAAAA

FIGURE 902

MNMGRPFQKNRVKPQFRSSGGSEHSTEGSVSLGDGQLNRYSSRNFPAERHNPTVTGHQEQTYLQKETSTLQVEQN
GDYGRGRRTLFRGRRRREDDRISRPHPSTAESKAPTPKFDLLASNFPPLPGSSSRMPGELVWRIGCLMLLKVSTK
KRIMKSTISCPVPADEQTECTSAQQLNMSTSSPCAAELTALSTTQQEKDLIEDSSVQKDGLNQTTIPVSPPSTTK
PSRASTASPCNNNINAATAVALQEPRKLSYAEVCQKPPKEPSSVLVQPLRELRSNVVSPTKNEDNGAPENSVEKP
HEKPEARASKDYSGFRGNIIPRGAAGKIREQRRQFSHRAIPQGVTRRNGKEQYVPPRSPK

FIGURE 903

AAAAGGGAAGCCTGCAACAAGTTAAGCTGAAGACCGAAGCAAGAGCTGGTTCAGCCTGCCAGTGGAGACACTGGG
CCCGGCATCCAGG**ATG**GACCCAGAATCTGAGAGAGCCCTGCAGGCCCCTCACAGCCCCTCCAAGACAGATGGGAA
AGAATTAGCTGGGACCATGGATGGAGAAGGGACGCTCTTCCAGACTGAAAGCCCTCAGTCTGGCAGCATTCTAAC
AGAGGAGACTGAGGTCAAGGGCACCCTGGAAGGTGATGTTTGTGGTGTGGAGCCTCCTGGCCCAGGAGACACAGT
AGTCCAGGGAGACCTGCAGGAGACCACCGTGGTGACAGGCCTGGGACCAGACACACAGGACCTGGAAGGCCAGAG
CCCTCCACAGAGCCTGCCTTCAACCCCCAAAGCAGCTTGGTTCAGGGAGGAGGGCCGCTGCTCCAGCAGTGACGA
TGACACCGACGTGGACATGGAGGGTCTGCGGAGACGGCGGGGCCGGGAGGCCGGCCCACCTCAGCCCATGGTGCC
CCTGGCTGTGGAGAACCAGGCTGGGGGTGAGGGTGCAGGCGGGGAGCTGGGCATCTCCCTCAACATGTGCCTCCT
TGGGGCCCTGGTTCTGCTTGGCCTGGGGGTCCTCCTCTTCTCAGGTGGCCTCTCAGAGTCTGAGACTGGGCCCAT
GGAGGAAGTGGAGCGGCAGGTCCTCCCAGACCCCGAGGTGCTGGAAGCTGTGGGGGACAGGCAGGATGGGCTAAG
GGAACAGCTGCAGGCCCCAGTGCCTCCTGACAGTGTCCCCAGCCTGCAAAACATGGGTCTTCTGCTGGACAAGCT
GGCCAAGGAGAACCAGGACATCCGGCTGCTGCAGGCCCAGCTGCAGGCCCAAAAGGAAGAGCTTCAGAGCCTGAT
GCACCAGCCCAAAGGGCTAGAGGAGGAGAATGCCCAGCTCCGGGGGGCTCTGCAGCAGGGCGAAGCCTTCCAGCG
GGCTCTGGAGTCAGAGCTGCAGCAGCTGCGGGCCCGGCTCCAGGGGCTGGAGGCCGACTGTGTCCGGGGCCCAGA
TGGGGTGTGCCTCAGTGGGGATAGAGGCCCACAGGGTGACAAGGCCATCAGGGAGCAAGGCCCCAGGGAGCAGGA
GCCAGAACTCAGCTTCCCGAAGCAGAAGGAACAGCTGGAGGCTGAGGCACAGGCATTAAGGCAAGAGTTAGAGAG
GCAGCGACGGCTGCTGGGGTCTGTACAGCAGGATCTGGAGAGGAGCTTGCAGGATGCCAGCCGCGGGGACCCAGC
TCATGCTGGCTTGGCTGAGCTGGGCCACAGATTGGCCCAGAAACTGCAGGGCCTGGAGAACTGGGGCCAGGACCC
TGGGGTCTCTGCCAATGCCTCAAAGGCCTGGCACCAGAAGTCCCACTTCCAGAATTCTAGGGAGTGGAGTGGAAA
GGAAAAGTGGTGGGATGGGCAGAGAGACCGGAAGGCTGAGCACTGGAAACATAAGAAGGAAGAATCTGGCCGGGA
AAGGAAGAAGAACTGGGGAGGTCAGGAGGACAGGGAGCCAGCAGGAAGGTGGAAGGAGGGCAGGCCAAGGGTGGA
GGAGTCGGGGAGCAAGAAGGAGGGCAAGCGACAGGGCCCGAAGGAACCCCCAAGGAAAAGTGGTAGCTTCCACTC
CTCTGGAGAAAAGCAGAAGCAACCTCGGTGGAGGGAAGGGACTAAGGACAGCCATGACCCCCTGCCATCCTGGGC
AGAGCTGTTGAGGCCCAAGTACCGGGCACCCCAGGGCTGCTCAGGTGTGGACGAGTGTGCCCGGCAGGAGGGCCT
GACTTTCTTTGGCACAGAGCTAGCCCCAGTGCGGCAACAGGAGCTGGCCTCTCTGCTAAGAACATACTTGGCACG
GCTGCCCTGGGCTGGGCAGCTGACCAAGGAGCTACCCCTCTCACCTGCTTTCTTTGGTGAGGATGGCATCTTCCG
TCATGACCGCCTCCGCTTCCGGGATTTTGTGGATGCCCTGGAGGACAGCTTGGAGGAGGTGGCTGTGCAACAGAC
AGGTGATGATGATGAAGTAGATGACTTTGAGGACTTCATCTTCAGCCACTTCTTTGGAGACAAAGCACTGAAGAA
GAGGTCAGGGAAGAAGGACAAGCACTCACAGAGCCCAAGAGCTGCGGGGCCCAGGGAGGGGCACAGCCATAGCCA
CCACCACCACCACCGGGGC**TGA**CACCCTGCCCCACAGGGAATGGCCTTGGCCTGGCCCAGCCCAAGATCCCAGCG
TTATCTAACTCCTGGAGGGTGGACTCTGTCCTGGCTTGTTTGGTGTCCTCAGATATCTTTCACACAGTAGAGCAA
AATCACCAGCCCTGCACTGATGTCACTTTATGTAGAAAAAGGCCTTAGCTGGACCTGTGTTGCCGTCTATGCAAA
TGCATGCAAATACTCCAGGCCCTGGGATGTGGGCTTGTGTTTTGTCACTGTGAAGGGGGAGATGGGAGAGGAGCC
TGTTTTGGGGTGGGGTCTGGGGAAGGCAATCTGATTCTGAAGCTAAAGAGCTTTCATCCTCTTGAGTGTATGTCC
CCATAGTGGGCCCCTTGACCCACATGCTGACCGGTGCCTTGGGATTTGACTAGAGTTGCTGGCTCGAGGCCCAGC
ACGAGGACTTACCCTGGGGTTTTGTTAGGTTTGGAAGCAGCTGTCCCTAGGGGGTGAAGTCCCCCCCCTTTTTTT
TTTTACCCCTGCTTCTCCCACGGCTTCACCTCCCTATGTGAACTGTAGACTCAGATCCCAATAAAGTGCTGTTGC
AGCTATGATGCTAGGTGGTTTCTAAGCACAGGGGACACCCCACACCCCCTGCCTGAATGGATGGGTCCATCCCAG
GCACTGGTACTTGCCCCCTTGTTCTGTATCCCCCTTTGCCCTTGCCTTGCCCTTCCAACAAACCCTAGGCCCTTG
AGAAGCTGATACTTCTCCTTTTGCTCACAGCTGCCTTGGCCCCACCCCTGGGAGATGTAGCAAATTGAGTGTGGG
TTTTGGAGTCTGAGCCTCAGGCTCAAATCCAGGCCAAGTGATCTTGGGCAAGTTAATCTCTGGGGACTTTGGGTT
TCTTATCCTCAAAAAAGGCGATGGAAGGGCTGGGGAAGTGATTAAATAAAAGCAACGCAAGAAAAATGCC

FIGURE 904

MDPESERALQAPHSPSKTDGKELAGTMDGEGTLFQTESPQSGSILTEETEVKGTLEGDVCGVEPPGPGDTVVQGD
LQETTVVTGLGPDTQDLEGQSPPQSLPSTPKAAWFREEGRCSSSDDDTDVDMEGLRRRRGREAGPPQPMVPLAVE
NQAGGEGAGGELGISLNMCLLGALVLLGLGVLLFSGGLSESETGPMEEVERQVLPDPEVLEAVGDRQDGLREQLQ
APVPPDSVPSLQNMGLLLDKLAKENQDIRLLQAQLQAQKEELQSLMHQPKGLEEENAQLRGALQQGEAFQRALES
ELQQLRARLQGLEADCVRGPDGVCLSGDRGPQGDKAIREQGPREQEPELSFPKQKEQLEAEAQALRQELERQRRL
LGSVQQDLERSLQDASRGDPAHAGLAELGHRLAQKLQGLENWGQDPGVSANASKAWHQKSHFQNSREWSGKEKWW
DGQRDRKAEHWKHKKEESGRERKKNWGGQEDREPAGRWKEGRPRVEESGSKKEGKRQGPKEPPRKSGSFHSSGEK
QKQPRWREGTKDSHDPLPSWAELLRPKYRAPQGCSGVDECARQEGLTFFGTELAPVRQQELASLLRTYLARLPWA
GQLTKELPLSPAFFGEDGIFRHDRLRFRDFVDALEDSLEEVAVQQTGDDDEVDDFEDFIFSHFFGDKALKKRSGK
KDKHSQSPRAAGPREGHSHSHHHHHRG

FIGURE 905

CGAGG**ATG**TGCGTGGGGGCTCGGCGGCTGGGCCGCGGGCCGTGTGCGGCTCTGCTCCTCCTGGGCCTGGGGCTGA
GCACCGTGACGGGGCTCCACTGTGTCGGGGACACCTACCCCAGCAACGACCGGTGCTGCCACGAGTGCAGGCCAG
GCAACGGGATGGTGAGCCGCTGCAGCCGCTCCCAGAACACGGTGTGCCGTCCGTGCGGGCCGGGCTTCTACAACG
ACGTGGTCAGCTCCAAGCCGTGCAAGCCCTGCACGTGGTGTAACCTCAGAAGTGGGAGTGAGCGGAAGCAGCTGT
GCACGGCCACACAGGACACAGTCTGCCGCTGCCGGGCGGGCACCCAGCCCCTGGACAGCTACAAGCCTGGAGTTG
ACTGTGCCCCCTGCCCTCCAGGGCACTTCTCCCCAGGCGACAACCAGGCCTGCAAGCCCTGGACCAACTGCACCT
TGGCTGGGAAGCACACCCTGCAGCCGGCCAGCAATAGCTCGGACGCAATCTGTGAGGACAGGGACCCCCCAGCCA
CGCAGCCCCAGGAGACCCAGGGCCCCCCGGCCAGGCCCATCACTGTCCAGCCCACTGAAGCCTGGCCCAGAACCT
CACAGGGACCCTCCACCCGGCCCGTGGAGGTCCCCGGGGGCCGTGCGGTTGCCGCCATCCTGGGCCTGGGCCTGG
TGCTGGGGCTGCTGGGCCCCCTGGCCATCCTGCTGGCCCTGTACCTGCTCCGGAGGGACCAGAGGCTGCCCCCCG
ATGCCCACAAGCCCCCTGGGGGAGGCAGTTTCCGGACCCCCATCCAAGAGGAGCAGGCCGACGCCCACTCCACCC
TGGCCAAGATC**TGA**CCTGGGCCCACCAAGGTGGACGCTGGGCCCCGCCAGGCTGGAGCCCGGAGGGTCTGCTGGG
CGAGCAGGGCAGGTGCAGGCCGCCTGCCCCGCCACGCTCCTGGGCCAACTCTGCACCGTTCTAGGTGCCGATGGC
TGCCTCCGGCTCTCTGCTTACGTATGCCATGCATACCTCCTGCCCCGCGGGACCACAATAAAAACCTTGGCAGAC
GGGAGTCTCCGACCGGCAAAAAAAAAAAAAAAAA

FIGURE 906

MCVGARRLGRGPCAALLLLGLGLSTVTGLHCVGDTYPSNDRCCHECRPGNGMVSRCSRSQNTVCRPCGPGFYNDV
VSSKPCKPCTWCNLRSGSERKQLCTATQDTVCRCRAGTQPLDSYKPGVDCAPCPPGHFSPGDNQACKPWTNCTLA
GKHTLQPASNSSDAICEDRDPPATQPQETQGPPARPITVQPTEAWPRTSQGPSTRPVEVPGGRAVAAILGLGLVL
GLLGPLAILLALYLLRRDQRLPPDAHKPPGGGSFRTPIQEEQADAHSTLAKI

FIGURE 907

ATGACCAAAGCTGATCTCATAAATAATTTGGGAACCATTGCCAAGTCTGGTACTAAAGCATTCATGGAGGCTCTT
CAGGCTGGTGCAGACATCTCCATGATTGGGCAGTTTGGTGTTGGCTTTTATTCTGCCTACTTGGTGGCAGAGAAA
GTGGTTGTGATCACAAAGCACAACGATGATGAACAGTATGCTTGGGAGTCTTCTGCTGGAGGTTCCTTCACTGTG
CGTGCTGACCATGGTGAGCCCATTGGCAGGGGTACCAAÄGTGATCCTCCATCTTAAAGAAGATCAGACAGAGTAC
CTAGAAGAGAGGCGGGTCAAAGAAGTAGTGAAGAAGCATTCTCAGTTCATAGGCTATCCCATCACCCTTTATTTG
GAGAAGGAACGAGAGAAGGAAATTAGTGATGATGAGGCAGAGGAAGAGAAAGGTGAGAAAGAAGAGGAAGATAAA
GATGATGAAGAAAAGCCCAAGATCGAAGATGTGGGTTCAGATGAGGAGGATGACAGCGGTAAGGATAAGAAGAAG
AAAACTAAGAAGATCAAAGAGAAATACATTGATCAGGAAGAACTAAACAAGACCAAGCCTATTGGACCAGAAAC
CCTGATGACATCACCCAAGAGGAGTATGGAGAATTCTACAAGAGCCTCACTAATGACTGGGAAGACCACTTGGCA
GTCAAGCACTTTTCTGTAGAAGGTCAGTTGGAATTCAGGGCATTGCTATTTATTCCTCGTCGGGCTCCCTTTGAC
CTTTTTGAGAACAAGAAGAAAAAGAACAACATCAAACTCTATGTCCGCCGTGTGTTCATCATGGACAGCTGTGAT
GAGTTGATACCAGAGTATCTCAATTTTATCCGTGGTGTGGTTGACTCTGAGGATCTGCCCCTGAACATCTCCCGA
GAAATGCTCCAGCAGAGCAAAATCTTGAAAGTCATTCGCAAAAACATTGTTAAGAAGTGCCTTGAGCTCTTCTCT
GAGCTGGCAGAAGACAAGGAGAATTACAAGAAATTCTATGAGGCATTCTCTAAAAATCTCAAGCTTGGAATCCAC
GAAGACTCCACTAACCGCCGCCGCCTGTCTGAGCTGCTGCGCTATCATACCTCCCAGTCTGGAGATGAGATGACA
TCTCTGTCAGAGTATGTTTCTCGCATGAAGGAGACACAGAAGTCCATCTATTACATCACTGGTGAGAGCAAAGAG
CAGGTGGCCAACTCAGCTTTTGTGGAGCGAGTGCGGAAACGGGGCTTCGAGGTGGTATATATGACCGAGCCCATT
GACGAGTACTGTGTGCAGCAGCTCAAGGAATTTGATGGGAAGAGCCTGGTCTCAGTTACCAAGGAGGGTCTGGAG
CTGCCTGAGGATGAGGAGGAGAAGAAGAAGATGGAAGAGAGCAAGGCAAAGTTTGAGAACCTCTGCAAGCTCATG
AAAGAAATCTTAGATAAGAAGGTTGAGAAGGTGACAATCTCCAATAGACTTGTGTCTTCACCTTGCTGCATTGTG
ACCAGCACCTACGGCTGGACAGCCAATATGGAGCGGATCATGAAAGCCCAGGCACTTCGGGACAACTCCACCATG
GGCTATATGATGGCCAAAAAGCACCTGGAGATCAACCCTGACCACCCCATTGTGGAGACGCTGCGGCAGAAGGCT
GAGGCCGACAAGAATGATAAGGCAGTTAAGGACCTGGTGGTGCTGCTGTTTGAAACCGCCCTGCTATCTTCTGGC
TTTTCCCTTGAGGATCCCCAGACCCACTCCAACCGCATCTATCGCATGATCAAGCTAGGTCTAGGTATTGATGAA
GATGAAGTGGCAGCAGAGGAACCCAATGCTGCAGTTCCTGATGAGATCCCCCCTCTCGAGGGCGATGAGGATGCG
TCTCGCATGGAAGAAGTCGAT**TAG**GTTAGGAGTTCATAGTTGGAAAACTTGTGCCCTTGTATAGTGTCCCCATGG
GCTCCCACTGCAGCCTCGAGTGCCCCTGTCCCACCTGGCTCCCCTGCTGGTGTCTAGTGTTTTTTT

FIGURE 908

MTKADLINNLGTIAKSGTKAFMEALQAGADISMIGQFGVGFYSAYLVAEKVVVITKHNDDEQYAWESSAGGSFTV
RADHGEPIGRGTKVILHLKEDQTEYLEERRVKEVVKKHSQFIGYPITLYLEKEREKEISDDEAEEEKGEKEEEDK
DDEEKPKIEDVGSDEEDDSGKDKKKKTKKIKEKYIDQEELNKTKPIWTRNPDDITQEEYGEFYKSLTNDWEDHLA
VKHFSVEGQLEFRALLFIPRRAPFDLFENKKKKNNIKLYVRRVFIMDSCDELIPEYLNFIRGVVDSEDLPLNISR
EMLQQSKILKVIRKNIVKKCLELFSELAEDKENYKKFYEAFSKNLKLGIHEDSTNRRRLSELLRYHTSQSGDEMT
SLSEYVSRMKETQKSIYYITGESKEQVANSAFVERVRKRGFEVVYMTEPIDEYCVQQLKEFDGKSLVSVTKEGLE
LPEDEEEKKKMEESKAKFENLCKLMKEILDKKVEKVTISNRLVSSPCCIVTSTYGWTANMERIMKAQALRDNSTM
GYMMAKKHLEINPDHPIVETLRQKAEADKNDKAVKDLVVLLFETALLSSGFSLEDPQTHSNRIYRMIKLGLGIDE
DEVAAEEPNAAVPDEIPPLEGDEDASRMEEVD

FIGURE 909

ACTCTTCTGGTCCCCACAGACTCAGAGAGAACCCACC**ATG**GTGCTGTCTCCTGCCGACAAGACCAACGTCAAGGC
CGCCTGGGGTAAGGTCGGCGCGCACGCTGGCGAGTATGGTGCGGAGGCCCTGGAGAGGATGTTCCTGTCCTTCCC
CACCACCAAGACCTACTTCCCGCACTTCGACCTGAGCCACGGCTCTGCCCAGGTTAAGGGCCACGGCAAGAAGGT
GGCCGACGCGCTGACCAACGCCGTGGCGCACGTGGACGACATGCCCAACGCGCTGTCCGCCCTGAGCGACCTGCA
CGCGCACAAGCTTCGGGTGGACCCGGTCAACTTCAAGCTCCTAAGCCACTGCCTGCTGGTGACCCTGGCCGCCCA
CCTCCCCGCCGAGTTCACCCCTGCGGTGCACGCCTCCCTGGACAAGTTCCTGGCTTCTGTGAGCACCGTGCTGAC
CTCCAAATACCGT**TAA**GCTGGAGCCTCGGTAGCCGTTCCTCCTGCCCGCTGGGCCTCCCAACGGGCCCTCCTCCC
CTCCTTGCACCGGCCCTTCCTGGTCTTTGAATAAAGTCTGAGTGGGCGGC

FIGURE 910

MVLSPADKTNVKAAWGKVGAHAGEYGAEALERMFLSFPTTKTYFPHFDLSHGSAQVKGHGKKVADALTNAVAHVD
DMPNALSALSDLHAHKLRVDPVNFKLLSHCLLVTLAAHLPAEFTPAVHASLDKFLASVSTVLTSKYR

GGAGTGCGGGGCGCCCGGCGCCAGGGGAGCCGCCACAGCC**ATG**GATTGCAAAGATAGACCAGCTTTTCCAGTTAA
GAAGTTAATACAAGCCCGTCTGCCGTTTAAGCGCCTGAATCTTGTCCCAAAGGGGAAAGCCGATGACATGTCAGA
CGATCAGGGTACTTCTGTGCAAAGTAAAAGCCCCGATTTAGAGGCCTCTTTGGACACCTTGGAAAACAACTGTCA
TGTGGGTTCTGACATAGACTTTAGACCGAAACTTGTCAACGGGAAGGGTCCCTTAGATAACTTTTTAAGAAATAG
AATCGAAACCAGTATTGGCCAGAGCACAGTCATCATTGATTTGACAGAGGACTCGAATGAGCAGCCAGACAGTCT
TGTGGACCACAATAAACTAAATTCTGAAGCCTCTCCCTCCAGGGAGGCAATAAATGGCCAGCGAGAAGACACTGG
GGATCAGCAGGGGTTGTTGAAGGCCATTCAGAACGACAAGTTGGCATTTCCTGGAGAGACCCTTTCAGACATTCC
TTGCAAAACAGAGGAGGAGGGTGTTGGCTGTGGAGGTGCAGGGAGGAGAGGCGACTCCCAGGAATGTTCGCCACG
GAGCTGCCCGGAGCTGACGAGTGGCCCGAGAATGTGCCCCAGAAAGGAGCAGGACAGTTGGAGTGAAGCTGGGGG
CATCCTGTTCAAAGGGAAGGTGCCTATGGTGGTCTTGCAGGACATCTTGGCTGTGAGACCACCGCAAATCAAGTC
CCTTCCAGCCACACCCCAAGGCAAGAACATGACCCCTGAGAGTGAGGTGCTGGAATCTTTCCCCGAAGAAGACTC
TGTACTCAGCCATTCGTCCCTGAGCTCTCCCTCTTCCACCAGCTCGCCCGAGGGGCCGCCTGCTCCCCCAAAGCA
GCACAGCAGTACCAGTCCCTTCCCCACCTCCACGCCCCTCCGCAGAATAACTAAGAAATTCGTCAAAGGCTCTAC
AGAGAAGAACAAGCTCAGACTGCAAAGAGATCAGGAGCGTCTGGGCAAGCAGCTCAAGTTACGTGCAGAAAGGGA
AGAAAAGGAGAAGCTGAAAGAGGAGGCCAAGCGGGCCAAGGAGGAGGCCAAGAAGAAGAAGGAGGAAGAGAAGGA
GCTTAAGGAAAAGGAGAGGCGGGAGAAGCGGGAGAAGGATGAGAAGGAGAAGGCGGAGAAGCAGCGGCTCAAGGA
GGAGCGGCGCAAGGAGAGACAGGAAGCCCTGGAGGCTAAACTTGAGGAAAAAAGGAAAAAGGAAGAAGAGAAACG
GTTAAGAGAAGAAGAGAAGCGCATTAAAGCAGAGAAGGCCGAAATCACGAGGTTCTTCCAGAAACCAAAGACTCC
ACAGGCCCCCAAGACCCTGGCCGGCTCCTGTGGGAAGTTTGCCCCCTTTGAAATTAAAGAGCACATGGTCCTGGC
CCCTCGGCGTCGGACCGCTTTCCATCCAGACCTCTGCAGTCAGCTGGACCAGCTCCTCCAGCAGCAGAGCGGCGA
GTTCTCCTTCTTGAAAGACCTCAAAGGCCGGCAGCCCCTGAGGTCCGGACCCACGCACGTTTCCACCCGGAATGC
AGATATTTTTAACAGTGATGTCGTCATCGTGGAGCGTGGGAAGGGCGACGGTGTTCCCGAGAGGAGGAAGTTTGG
CAGGATGAAGCTCCTGCAGTTCTGTGAGAACCACCGGCCTGCCTACTGGGGTACCTGGAATAAGAAGACGGCACT
CATCCGCGCGCGAGACCCCTGGGCCCAGGACACGAAGCTCCTGGACTATGAGGTGGACAGTGATGAGGAGTGGGA
AGAAGAGGAGCCTGGGGAGTCCCTGTCCCACAGTGAGGGGGATGATGATGACGACATGGGAGAGGATGAAGATGA
GGACGATGGTTTCTTTGTGCCCCATGGGTACCTGTCTGAGGACGAAGGTGTGACAGAGGAGTGTGCCGACCCTGA
GAACCATAAGGTCCGCCAGAAACTGAAGGCCAAGGAGTGGGACGAGTTCCTGGCTAAGGGGAAGCGCTTTCGCGT
CCTGCAACCTGTGAAGATCGGCTGCGTGTGGGCGGCTGACAGAGACTGCGCAGGCGATGACCTGAAGGTACTGCA
GCAGTTCGCAGCCTGCTTCCTGGAGACCCTGCCGGCCCAGGAGGAGCAGACGCCCAAGGCCTCCAAGCGGGAGAG
GAGAGACGAGCAGATCCTGGCCCAGCTGCTGCCGCTCCTGCACGGCAATGTGAACGGGAGCAAGGTCATCATCCG
GGAGTTCCAGGAGCACTGCCGCCGGGGACTGCTCAGCAACCACACCGGCAGCCCGCGGACGCCCTCCACCACCTA
CCTGCACACCCCCACCCCCAGCGAGGATGCCGCCATCCCCTCTAAGTCCCGGCTCAAGCGGCTCATTTCCGAGAA
CTCAGTGTATGAGAAGCGGCCTGACTTCAGGATGTGCTGGTACGTGCACCCGCAGGTGCTACAGAGCTTCCAGCA
GGAGCACCTGCCCGTGCCGTGCCAGTGGAGCTATGTGACATCGGTGCCCTCGGCCCCCAAAGAGGACAGTGGCAG
CGTCCCCTCCACGGGGCCCAGCCAGGGCACTCCCATCTCGCTGAAGAGGAAGTCAGCGGGCAGCATGTGCATCAC
CCAATTCATGAAGAAGCGCAGGCACGACGGCCAGATTGGTGCTGAAGACATGGACGGCTTCCAGGCAGACACGGA
GGAGGAGGAAGAGGAGGAGGGCGACTGTATGATCGTGGATGTCCCGGATGCTGTGGAGGTCCAAGCCCCGTGTGG
AGCCGCTTCCGGAGCTGGGGGTGGTGTGGGGGTGGACACCGGCAAGGCCACCCTGACCGCGAGCCCACTGGGTGC
ATCC**TGA**GAGCAGGGGTGACGTATGTAGAACGCTTAGGGTGTCCTCCCCACAGAGCAGATACTTGAACCGACTCA
ATTCCTGTGTAAAGAGCACTTTGTCCTGCTTCACGGACCTCCCCAAAGTGTGCAGAGTTCTATATAGGATGCTGG
ATTAGTTCCTTTGATATTTGTAAAAATTCCCCCAAGAGCCGCATATGAATCTGCCCTTTAATAAAGCATTATTGA
GATTGCTGGCCTATTGGGGAAGCTGCGGGCACAGGA

FIGURE 912

MDCKDRPAFPVKKLIQARLPFKRLNLVPKGKADDMSDDQGTSVQSKSPDLEASLDTLENNCHVGSDIDFRPKLVN
GKGPLDNFLRNRIETSIGQSTVIIDLTEDSNEQPDSLVDHNKLNSEASPSREAINGQREDTGDQQGLLKAIQNDK
LAFPGETLSDIPCKTEEEGVGCGGAGRRGDSQECSPRSCPELTSGPRMCPRKEQDSWSEAGGILFKGKVPMVVLQ
DILAVRPPQIKSLPATPQGKNMTPESEVLESFPEEDSVLSHSSLSSPSSTSSPEGPPAPPKQHSSTSPFPTSTPL
RRITKKFVKGSTEKNKLRLQRDQERLGKQLKLRAEREEKEKLKEEAKRAKEEAKKKKEEEKELKEKERREKREKD
EKEKAEKQRLKEERRKERQEALEAKLEEKRKKEEEKRLREEEKRIKAEKAEITRFFQKPKTPQAPKTLAGSCGKF
APFEIKEHMVLAPRRRTAFHPDLCSQLDQLLQQQSGEFSFLKDLKGRQPLRSGPTHVSTRNADIFNSDVVIVERG
KGDGVPERRKFGRMKLLQFCENHRPAYWGTWNKKTALIRARDPWAQDTKLLDYEVDSDEEWEEEEPGESLSHSEG
DDDDDMGEDEDEDDGFFVPHGYLSEDEGVTEECADPENHKVRQKLKAKEWDEFLAKGKRFRVLQPVKIGCVWAAD
RDCAGDDLKVLQQFAACFLETLPAQEEQTPKASKRERRDEQILAQLLPLLHGNVNGSKVIIREFQEHCRRGLLSN
HTGSPRTPSTTYLHTPTPSEDAAIPSKSRLKRLISENSVYEKRPDFRMCWYVHPQVLQSFQQEHLPVPCQWSYVT
SVPSAPKEDSGSVPSTGPSQGTPISLKRKSAGSMCITQFMKKRRHDGQIGAEDMDGFQADTEEEEEEGDCMIVD
VPDAVEVQAPCGAASGAGGGVGVDTGKATLTASPLGAS

FIGURE 913

GGCACGAGGTTCCGAGTTGCG**ATG**CTGTACTTCTCTTTGTTTTGGGCGGCTCGGCCTCTGCAGAGATGTGGGCAG
CTGGTCAGGATGGCCATTCGGGCTCAGCACAGCAACGCAGCCCAGACTCAGACTGGGGAAGCAAACAGGGGCTGG
ACAGGCCAGGAGAGCCTGTCGGACAGTGATCCTGAGATGTGGGAGTTGCTGCAGAGGGAGAAGGACAGGCAGTGT
CGTGGCCTGGAGCTCATTGCCTCAGAGAACTTCTGCAGCCGAGCTGCGCTGGAGGCCCTGGGGTCCTGTCTGAAC
AACAAGTACTCGGAGGGTTATCCTGGCAAGAGATACTATGGGGGAGCAGAGGTGGTGGATGAAATTGAGCTGCTG
TGCCAGCGCCGGGCCTTGGAAGCCTTTGACCTGGATCCTGCACAGTGGGGAGTCAATGTCCAGCCCTACTCCGGG
TCCCCAGCCAACCTGGCCGTCTACACAGCCCTTCTGCAACCTCACGACCGGATCATGGGGCTGGACCTGCCCGAT
GGGGGCCATCTCACCCACGGCTACATGTCTGACGTCAAGCGGATATCAGCCACGTCCATCTTCTTCGAGTCTATG
CCCTATAAGCTCAACCCCAAAACTGGCCTCATTGACTACAACCAGCTGGCACTGACTGCTCGACTTTTCCGGCCA
CGGCTCATCATAGCTGGCACCAGCGCCTATGCTCGCCTCATTGACTACGCCCGCATGAGAGAGGTGTGTGATGAA
GTCAAAGCACACCTGCTGGCAGACATGGCCCACATCAGTGGCCTGGTGGCTGCCAAGGTGATTCCCTCGCCTTTC
AAGCACGCGGACATCGTCACCACCACTACTCACAAGACTCTTCGAGGGGCCAGGTCAGGGCTCATCTTCTACCGG
AAAGGGGTGAAGGCTGTGGACCCCAAGACTGGCCGGGAGATCCCTTACACATTTGAGGACCGAATCAACTTTGCC
GTGTTCCCATCCCTGCAGGGGGGCCCCCACAATCATGCCATTGCTGCAGTAGCTGTGGCCCTAAAGCAGGCCTGC
ACCCCCATGTTCCGGGAGTACTCCCTGCAGGTTCTGAAGAATGCTCGGGCCATGGCAGATGCCCTGCTAGAGCGA
GGCTACTCACTGGTATCAGGTGGTACTGACAACCACCTGGTGCTGGTGGACCTGCGGCCCAAGGGCCTGGATGGA
GCTCGGGCTGAGCGGGTGCTAGAGCTTGTATCCATCACTGCCAACAAGAACACCTGTCCTGGAGACCGAAGTGCC
ATCACACCGGGCGGCCTGCGGCTTGGGGCCCCAGCCTTAACTTCTCGACAGTTCCGTGAGGATGACTTCCGGAGA
GTTGTGGACTTTATAGATGAAGGGGTCAACATTGGCTTAGAGGTGAAGAGCAAGACTGCCAAGCTCCAGGATTTC
AAATCCTTCCTGCTTAAGGACTCAGAAACAAGTCAGCGTCTGGCCAACCTCAGGCAACGGGTGGAGCAGTTTGCC
AGGGCCTTCCCCATGCCTGGTTTTGATGAGCATT**TGA**AGGCACCTGGGAAATGAGGCCCACAGACTCAAAGTTACT
CTCCTTCCCCCTACCTGGGCCAGTGAAATAGAAAGCCTTTCTATTTTTTGGTGCGGGAGGGAAGACCTCTCACTT
AGGGCAAGAGCCAGGTATAGTCTCCCTTCCCAGAATTTGTAACTGAGAAGATCTTTTCTTTTTCCTTTTTTTGGT
AACAAGACTTAGAAGGAGGGCCCAGGCACTTTCTGTTTGAACCCCTGTCATGATCACAGTGTCAGAGACGCGTCC
TCTTTCTTGGGGAAGTTGAGGAGTGCCCTTCAGAGCCAGTAGCAGGCAGGGGTGGGTAGGCACCCTCCTTCCTGT
TTTTATCTAATAAAATGCTAACCTGCAAAAAAAAAAAAAAAAAAAAAAAAAAAATCAGACTAGGTGGACTCTGCCTG
CCTACCTGGTCTGGGAAGATGTTCTACCATATCTCCCTAGAGCACGAAATCCTGCTGCACCCGCGCTACTTCGGC
CCCAACTTGCTCAACACGGTGAAGCAGAAGCTCTTCACCGAGGTGGAGGGGACCTGCACAGGGAAGTGAGTGTCG
AGCTCACCGCACCGCCAGATCGTTCGATGCGCACACGGGGCGCTATACCTGCAACCCCTCCCCAACTCCTACTCG
TCCTGCCACCCACTCTGGGGACCCCTCTCCTCTCTCAGGCAGCCAGTTGCTTCCTGCTTTGGGTTCCCAGGGCGC
CCTCTGCAATGCTGGACAATAAGACTTCCTTCTCTCAGCTGAGATGGGTCATTCATTGACTCCTCAAACATTTTA
AAAACCCTTGGTGTGTGCCAGGACCCGTGTTGGGCTCAGAACAAGGTAGAATGGGAACAAGATAGAATGAGGACA
GCCCCTGTGGAGCTCACAGTGTAATCATTGTTCCTGTGTCTGCTCTCCCTCTGTCATTCTGCTGGTTTTCTCTTA
TCCCCTGTGCCCAGGGACCACACACCATGGGCCTCTATATATCTTCTGAATGAATGACCAGAAAAAGCAGATCGA
GAGTTTGGGGGAGGAAGGAAGTAGCCTGGGATTTGACCATCTCTGGGCTTTGCACAGAGGGGCCTCTCTGATATT
AATGAGCTGGGACCCAGCTCAGGGCAGTGGAGTACTTGGGCCTCCAGCATCAGAAAAACCTGCAGGAACATGCAG
ATTCCTGAGCCTCCTTATTCCCTACAGAATCAAGACTGTCTGGGGCAGACCTGAGAATCTGCATTTTAAGAAGAT
GATTCTCAGGCATCCCGAAGATTGAGATCTGTTGCCTCAAGGACTCCAGCCTTCTTGGACATTTATTGTGAAATT
ACCAGAACAGCATTTGGTCTTACACATACTGATCTCTGTTCTGTCTTCTTTTGGTCATTAAGCTCTCTGGGAGCA
GAGGTGCTATCTACTTGTCCTTTTGCTCTCCCCGACCCTACCCCCAAGAGCTCAGCGACTTTTATTGCAGATGTC
TTTAGAGGCTCTTGGACACACAGTGTCTTCCTGTTTCTCATCCTCCTTGCAGGTTGGACTCTTCACAGAAATTGG
GCCCATGTCTTGCTTCATCTCTCGACATTCCATCCCTTCAGAGATGGAGTTTGATCCTAACTCCAACCCACCATG
TTACAAGACAATGGATGAGGATATTGTGATTCAGCAGGACGATGAGATCCGCTTAAAGATTGTGGGGACCCGTGT
GGACAAGAATGACATTTTTGCTATTGGCTCCCTGATGGACGATTACTTGGGCTTGTAAGCTGAGCCTGGTGGCC
TCCTACCCTTGGTCCTACTCTAGGAAGTGTGATTGTCACACTTATCATGTTGTCCAGAGGTCCAGTCTGGCTGCT
GTTGTGGAGGCAAGGAAGGCAACTCATCCCAGAAGGCATCTGGTGCTTCTTGTAGCTTAACTACTGCCTCCTCAT
TTTTCAGTATGTGTTCTAAGTATAAAAAGTCCTTGGTTCTCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 914

MLYFSLFWAARPLQRCGQLVRMAIRAQHSNAAQTQTGEANRGWTGQESLSDSDPEMWELLQREKDRQCRGLELIA
SENFCSRAALEALGSCLNNKYSEGYPGKRYYGGAEVVDEIELLCQRRALEAFDLDPAQWGVNVQPYSGSPANLAV
YTALLQPHDRIMGLDLPDGGHLTHGYMSDVKRISATSIFFESMPYKLNPKTGLIDYNQLALTARLFRPRLIIAGT
SAYARLIDYARMREVCDEVKAHLLADMAHISGLVAAKVIPSPFKHADIVTTTTHKTLRGARSGLIFYRKGVKAVD
PKTGREIPYTFEDRINFAVFPSLQGGPHNHAIAAVAVALKQACTPMFREYSLQVLKNARAMADALLERGYSLVSG
GTDNHLVLVDLRPKGLDGARAERVLELVSITANKNTCPGDRSAITPGGLRLGAPALTSRQFREDDFRRVVDFIDE
GVNIGLEVKSKTAKLQDFKSFLLKDSETSQRLANLRQRVEQFARAFPMPGFDEH

FIGURE 915

CTCGCCCGTCCGGCGCACGCTCCGCCTCCGTCAGTTGGCTCCGCTGTCGGGTGCGCGGCGTGGAGCGGCAGCCGG
TCTGGACGCGCGGCCGGGGCTGGGGGCTGGGAGCGCGGCGCGCAAGATCTCCCCGCGCGAGAGCGGCCCCTGCCA
CCGGGCGAGGCCTGCGCCGCG**ATG**GCAGAGATGGGCAGTAAAGGGGTGACGGCGGGAAAGATCGCCAGCAACGTG
CAGAAGAAGCTCACCCGCGCGCAGGAGAAGGTTCTCCAGAAGCTGGGGAAGGCAGATGAGACCAAGGATGAGCAG
TTTGAGCAGTGCGTCCAGAATTTCAACAAGCAGCTGACGGAGGGCACCCGGCTGCAGAAGGATCTCCGGACCTAC
CTGGCCTCCGTCAAAGCCATGCACGAGGCTTCCAAGAAGCTGAATGAGTGTCTGCAGGAGGTGTATGAGCCCGAT
TGGCCCGGCAGGGATGAGGCAAACAAGATCGCAGAGAACAACGACCTGCTGTGGATGGATTACCACCAGAAGCTG
GTGGACCAGGCGCTGCTGACCATGGACACGTACCTGGGCCAGTTCCCCGACATCAAGTCACGCATTGCCAAGCGG
GGGCGCAAGCTGGTGGACTACGACAGTGCCCGGCACCACTACGAGTCCCTTCAAACTGCCAAAAAGAAGGATGAA
GCCAAAATTGCCAAGGCCGAGGAGGAGCTCATCAAAGCCCAGAAGGTGTTTGAGGAGATGAATGTGGATCTGCAG
GAGGAGCTGCCGTCCCTGTGGAACAGCCGCGTAGGTTTCTACGTCAACACGTTCCAGAGCATCGCGGGCCTGGAG
GAAAACTTCCACAAGGAGATGAGCAAGCTCAACCAGAACCTCAATGATGTGCTGGTCGGCCTGGAGAAGCAACAC
GGGAGCAACACCTTCACGGTCAAGGCCCAGCCCAGTGACAACGCGCCTGCAAAAGGGAACAAGAGCCCTTCGCCT
CCAGATGGCTCCCCTGCCGCCACCCCCGAGATCAGAGTCAACCACGAGCCAGAGCCGGCCGGCGGGGCCACGCCC
GGGGCCACCCTCCCCAAGTCCCCATCTCAGCTCCGGAAAGGCCCACCAGTCCCTCCGCCTCCCAAACACACCCCG
TCCAAGGAAGTCAAGCAGGAGCAGATCCTCAGCCTGTTTGAGGACACGTTTGTCCCTGAGATCAGCGTGACCACC
CCCTCCCAGCCAGCAGAGGCCTCGGAGGTGGCGGGTGGGACCCAACCTGCGGCTGGAGCCCAGGAGCCAGGGGAG
ACGGCGGCAAGTGAAGCAGCCTCCAGCTCTCTTCCTGCTGTCGTGGTGGAGACCTTCCCAGCAACTGTGAATGGC
ACCGTGGAGGGCGGCAGTGGGGCCGGGCGCTTGGACCTGCCCCCAGGTTTCATGTTCAAGGTACAGGCCCAGCAC
GACTACACGGCCACTGACACAGACGAGCTGCAGCTCAAGGCTGGTGATGTGGTGCTGGTGATCCCCTTCCAGAAC
CCTGAAGAGCAGGATGAAGGCTGGCTCATGGGCGTGAAGGAGAGCGACTGGAACCAGCACAAGGAGCTGGAGAAG
TGCCGTGGCGTCTTCCCCGAGAACTTCACTGAGAGGGTCCCA**TGA**CGGCGGGGCCCAGGCAGCCTCCGGGCGTGT
GAAGAACACCTCCTCCCGAAAAATGTGTGGTTCTTTTTTTTGTTTTGTTTTCGTTTTTCATCTTTTGAAGAGCAA
AGGGAAATCAAGAGGAGACCCCCAGGCAGAGGGGCGTTCTCCCAAAGATTAGGTCGTTTTCCAAAGAGCCGCGTC
CCGGCAAGTCCGGCGGAATTCACCAGTGTTCCTGAAGCTGCTGTGTCCTCTAGTTGAGTTTCTGGCGCCCCTGCC
TGTGCCCGCATGTGTGCCTGGCCGCAGGGCGGGGCTGGGGGCTGCCGAGCCACCATGCTTGCCTGAAGCTTCGGC
CGCGCCACCCGGGCAAGGGTCCTCTTTTCCTGGCAGCTGCTGTGGGTGGGGCCCAGACACCAGCCTAGCCTGGCT
CTGCCCCGCAGACGGTCTGTGTGCTGTTTGAAAATAAATCTTAGTGTTCAAAACAAAATGAAACAAAAAAAAAAT
GATAAAAACTTTCAG

FIGURE 916

MAEMGSKGVTAGKIASNVQKKLTRAQEKVLQKLGKADETKDEQFEQCVQNFNKQLTEGTRLQKDLRTYLASVKAM
HEASKKLNECLQEVYEPDWPGRDEANKIAENNDLLWMDYHQKLVDQALLTMDTYLGQFPDIKSRIAKRGRKLVDY
DSARHHYESLQTAKKKDEAKIAKAEEELIKAQKVFEEMNVDLQEELPSLWNSRVGFYVNTFQSIAGLEENFHKEM
SKLNQNLNDVLVGLEKQHGSNTFTVKAQPSDNAPAKGNKSPSPPDGSPAATPEIRVNHEPEPAGGATPGATLPKS
PSQLRKGPPVPPPPKHTPSKEVKQEQILSLFEDTFVPEISVTTPSQPAEASEVAGGTQPAAGAQEPGETAASEAA
SSSLPAVVVETFPATVNGTVEGGSGAGRLDLPPGFMFKVQAQHDYTATDTDELQLKAGDVVLVIPFQNPEEQDEG
WLMGVKESDWNQHKELEKCRGVFPENFTERVP

FIGURE 917

AAAGCAGAATTGAGAGTTTGTTCTTACACACAAGTTTAATGCCACCTTCCTCTGTCTGCC**ATG**GACCAACAAGCA
ATATATGCTGAGTTAAACTTACCCACAGACTCAGGCCCAGAAAGTTCTTCACCTTCATCTCTTCCTCGGGATGTC
TGTCAGGGTTCACCTTGGCATCAATTTGCCCTGAAACTTAGCTGTGCTGGGATTATTCTCCTTGTCTTGGTTGTT
ACTGGGTTGAGTGTTTCAGTGACATCCTTAATACAGAAATCATCAATAGAAAAATGCAGTGTGGACATTCAACAG
AGCAGGAATAAAACAACAGAGAGACCGGGTCTCTTAAACTGCCCAATATATTGGCAGCAACTCCGAGAGAAATGC
TTGTTATTTTCTCACACTGTCAACCCTTGGAATAACAGTCTAGCTGATTGTTCCACCAAAGAATCCAGCCTGCTG
CTTATTCGAGATAAGGATGAATTGATACACACACAGAACCTGATACGTGACAAAGCAATTCTGTTTTGGATTGGA
TTAAATTTTTCATTATCAGAAAAGAACTGGAAGTGGATAAACGGCTCTTTTTTAAATTCTAATGACTTAGAAATT
AGAGGTGATGCTAAAGAAAACAGCTGTATTTCCATCTCACAGACATCTGTGTATTCTGAGTACTGTAGTACAGAA
ATCAGATGGATCTGCCAAAAAGAACTAACACCTGTGAGAAATAAAGTGTATCCTGACTCT**TGA**

FIGURE 918

MDQQAIYAELNLPTDSGPESSSPSSLPRDVCQGSPWHQFALKLSCAGIILLVLVVTGLSVSVTSLIQKSSIEKCS
VDIQQSRNKTTERPGLLNCPIYWQQLREKCLLFSHTVNPWNNSLADCSTKESSLLLIRDKDELIHTQNLIRDKAI
LFWIGLNFSLSEKNWKWINGSFLNSNDLEIRGDAKENSCISISQTSVYSEYCSTEIRWICQKELTPVRNKVYPDS

FIGURE 919

ATGACCATGGAAACAGTTGAATCCCAGCATGATGGAAGTATAACAGCTTCTTTGACAGAGAGCAAGTCTGCTCAT
GTGCAGACTCAGACTGGGCAAATTTCAATCCCTGCTTTAGCTCAGTGCAGTGAGCTGAGATCAGGCACCAGAAGA
GGCTCCCCAGCTGTAACTCTAGTGCAGTTACCTTCGGGCCAAACTATACATGTCCAGGGAGTAATTCAGACACCA
CAGCCATGGGTTATTCAGTCATCAGAAATACACACCGTTCAGGTAGCAGCAATTGCAGAGACAGATGAATCTGCA
GAATCAGAAGGTGTAATTGATTCTCATAAACGTAGAGAAATCCTTTCACGAAGACCCTCTTATAGGAAAATACTG
AATGAACTGTCCTCTGATGTGCCTGGTGTTCCCAAGATTGAAGAAGAGAGATCAGAGGAAGAAGGAACACCACCT
AGTATTGCTACCATGGCAGTACCAACTAGCATATATCAGACTAGCACGGGGCAATACATTGCTATAGCCCAAGGT
GGAACAATCCAGATTTCTAACCCAGGATCTGATGGTGTTCAGGGACTGCAGGCATTAACAATGACAAATTCAGGA
GCTCCTCCACCAGGTGCTACAATTGTACAGTACGCAGCACAATCAGCTGATGGCACACAGCAGTTCTTTGTCCCA
GGCAGCCAGGTTGTTGTTCAAGCTGCCACTGGTGACATGCCAACTTACCAGATCCGAGCTCCTACTGCTGCTTTG
CCACAGGGAGTGGTGATGGCTGCATCGCCCGGAAGTTTGCACAGTCCCCAGCAGCTGGCAGAAGAAGCAACACGC
AAACGAGAGCTGAGGCTAATGAAAAACAGAGAAGCTGCCCGGGAGTGTCGCAGGAAGAAGAAAGAATATGTCAAA
TGTCTTGAAAATCGTGTGGCTGTGCTTGAAAACCAAAACAAGACTCTCATTGAGGAACTCAAGGCCCTCAAAGAT
CTTTATTGCCATAAAGTAGAGTAACTGTCTTTGACTTGGACCTTGTTTACTCTAATCAAGGCAGGAGATGCAGCA
GTCCTACTTATTGCCATGTGGACTTGTGGGAAGGACACGTGTGACCCTTAAGAATCCAGTTTGGATTAGTGTTTG
AAATTGAATTGGGAATGTTGTTCCAGGATGTGGAATGCAGCGTGATCACACTTACCGAGCTTACTTTGATCTGTT
TGTCAATAGCATGCAAAAAATGCTTTGTTTGCCCTTTGCTTCTGCTTTTTTTCAGGGAAGCTGCCAAAGAATGTC
GACGTCGAAAGAAAGAATATGTAAAATGCCTGGAGAGCCGAGTTGCAGTGCTGGAAGTCCAGAACAAGAAGCTTA
TAGAGGAACTTGAAACCTTGAAAGACATTTGTTCTCCCAAAACTGATTACTAGAAATATTTAACTATGAACTGAT
TACAGA

FIGURE 920

MAVTGDETDEETDLAPSHMAAATGDMPTYQIRAPTTALPQGVVMAASPGSLHSPQQLAEEATRKRELRLMKNREA
AKECRRRKKEYVKCLESRVAVLEVQNKKLIEELETLKDICSPKTD

FIGURE 921

ATGAGACTTCTCATCCTGGCCCTCCTTGGCATCTGCTCTCTCACTGCATACATTGTGGAAGGTGTAGGGAGTGAA
GTCTCACATAGGAGGACCTGTGTGAGCCTCACTACCCAGCGACTGCCAGTTAGCAGAATCAAGACCTACACCATC
ACGGAAGGCTCCTTGAGAGCAGTAATTTTTATTACCAAACGTGGCCTAAAAGTCTGTGCTGATCCACAAGCCACG
TGGGTGAGAGACGTGGTCAGGAGCATGGACAGGAAATCCAACACCAGAAATAACATGATCCAGACCAAGCCAACA
GGAACCCAGCAATCGACCAATACAGCTGTGACCCTGACTGGC**TAG**

FIGURE 922

MRLLILALLGICSLTAYIVEGVGSEVSHRRTCVSLTTQRLPVSRIKTYTITEGSLRAVIFITKRGLKVCADPQAT
WVRDVVRSMDRKSNTRNNMIQTKPTGTQQSTNTAVTLTG

FIGURE 923

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CACGTGGCTGCAGCGGGGCCAGAGCAGCAATGGCGGCGGGCGGCGGCGGTAGCTGCGACCCCCTGGCCCCTGCTG
GGGTCCCTTGCGCCTTCTCCCCGCACAGCCAGGCCTACTTCGCTTTGGCCTCTACCGACGGTCACTTACGAGTAT
GGGAGACGGCCAACAACCGGCTGCACCAGGAGTACGTGCCTTCCGCGCACCTCAGTGGTACCTGCACCTGTCTGG
CCTGGGCGCCAGCGCGGCTGCAGGCCAAGGAAAGTCCCCAGAGGAAAAAAGGAAATCAGAAGCTGTAGGAATGA
GTAACCAGACTGACTTATTGGCTCTTGGCACAGCAGTTGGTAGCATTTTATTATACAGCACAGTAAAAGGAGAGT
TACACAGTAAATTAATAAGTGGTGGACATGACAACAGAGTCAACTGCATACAGTGGCATCAAGACAGTGGCTGTT
TATATAGTTGTTCAGATGATAAACATATTGTGGAATGGAACGTACAGACATGCAAAGTAAAGTGCAAATGGAAAG
GGGACAATAGCAGTGTCAGTTCCCTATGTATCAGCCCAGATGGAAAGATGTTGCTTTCAGCTGGTCGAACAATCA
AACTATGGGTTTTGGAGACCAAAGAAGTCTACAGGCATTTCACAGGACATGCAACGCCAGTTTCGTCACTGATGT
TCACTACCATCAGACCTCCTAATGAGAGCCAGCCCTTTGATGGAATTACAGGTCTTTATTTCTTATCTGGAGCAG
TACATGACCGGTTACTTAATGTCTGGCAGGTCCGATCAGAAAACAAAGAAAAGAGTGCAGTGATGTCATTTACAG
TTACCGATGAACCTGTCTATATTGACTTAACTTTGTCAGAAAACAAAGAAGAGCCTGTCAAGTTGGCTGTTGTTT
GCAGAGATGGTCAAGTCCATCTTTTTGAACACATATTAAATGGGTACTGCAAAAAGCCTTTGACTTCAAACTGCA
CAATTCAGATAGCAACACCTGGGAAAGGCAAGAAGTCAACACCAAAACCCATCCCTATTCTAGCTGCTGGTTTTT
GCTCAGACAAAATGTCATTGTTGCTTGTATATGGCAGTTGGTTTCAGCCTACTATTGAGCGAGTGGCTTTAAACT
CCAGAGAACCTCATATGTGTTTAGTAAGAGATATTTCAAACTGCTGGGCCCCCAAAGTAGAAACAGCTATAACAA
AGGTGAGGACACCAGTGATGAATTCTGAAGCAAAAGTTCTGGTGCCTGGGATTCCTGGTCATCATGCAGCTATCA
AGCCCGCTCCTCCACAAACCGAGCAAGTAGAGAGCAAGAGGAAGTCAGGGGGAAATGAGGTTAGCATTGAAGAAC
GTCTGGGAGCAATGGATATAGACACACACAAAAAAGGAAAGGAAGACCTCCAGACGAATAGCTTTCCAGTTCTTC
TTACCCAGGGCTTAGAAAGTAACGATTTTGAAATGCTAAATAAAGTACTTCAAACTAGGAATGTAAACCTTATAA
AGAAGACTGTATTAAGGATGCCCCTGCATACTATTATTCCGTTGTTACAAGAGCTTACAAAGAGGTTACAAGGAC
ATCCTAATAGTGCTGTGCTAATGGTTCAGTGGCTAAAATGTGTGTTAACAGTTCATGCATCATACCTGTCCACGT
TGCCTGACCTGGTACCCCAGCTGGGGACACTCTACCAGTTAATGGAAAGCAGAGTCAAAACTTTTCAGAAACTTT
CACACCTTCATGGAAAGCTTATTCTTCTAATTACACAAGTAACAGCATCAGAGAAGACAAAGGGAGCAACTTCCC
CTGGACAGAAGGCAAAGTTGGTGTATGAAGAAGAGTCTTCTGAAGAGGAGTCTGATGATGAAATAGCAGATAAGG
ATTCTGAAGATAATTGGGATGAAGATGAGGAGGAGAGTGAAAGTGAAAAAGATGAGGACGTTGAAGAGGAAGATG
AGGATGCCGAAGGAAAAGATGAAGAAAATGGCGAGGACAGAGATACAGCAAGTGAAAAAGAATTAAATGGAGATT
CTGACTTAGATCCTGAAAATGAAAGTGAAGAAGAA**TGA**AGACAGCAAAGCAAGCCGGTCAAACTATATAAACTCT
GGCTCACCTTGCCCAGTGGTGAGGGCTGCCTCTGTGCCAGGATGCCAAGGACCGCTGCACATTTCCAAATTCACA
GCAGTGGATCCCATGCCACTTTGCTGTCCTGAGCACCCCAGACTTGACTGTGTAAATAAGAGTGTTTCATTCAAA
TGTTAATAAACTTTACACAGTATATAGACACATTTTCTGCAATGTACTGACATCAGTGTCCAATATATGGTATAT
TTTTATAATATAATATCCTAGTATGATTGGTTATATCAAGAATTGACAAGTGCAGATAAAGACCTTTCCCATAGG
AGTTCAAGAACTGGACTGTTGTGAAGAAGTCAGCTCTTATCTCAGGTTGGTATCTTTCATCAAATCCAGATGCAA
AGCAGCACTAGTGAAAATTTTTTTAATTTAGTACATTTAATTGGTACATTTTCATAAAATATGAAGGGATAACT
ACAAACTGGAGTAAAAATGATGGTAATTAAAAAAAATCCTCAGTATCCCTAGCTTGTCTATTAACTGTGATAATC
TGACTTGAGTCAGATTGAATATTTGGAGTGCTTCCCCAGAATAACCACTTATTTTGAAGCTATCATGTGAAGTA
TTTTTTTAAAACAAAACAAAAATTATGGTCATTAAAAAACTAGAGAATTAGCCATATTAAGGATTTTTCTTGACT
GCAAATTACTTCTAAAGAATCATCAGTGTATAGATTAGAAGTGCTCATTACCTGCAACTTTTAAAAAAAATTCAG
TTATAGCTGCTTTTGAAGAGGTTTCCATTTTTATTTAAATTACTAATGGATCAAAGAACAATTGTTTATTTTTTC
TCTTTGGTTTTAGATATTAATGATAACCTTGTTGGAATTTTTTTTCCAAAGAAAATATTTTTATAATTAAATAAT
TTAATGTTTTTCTTCCTTTTCATTACCTACTCTTGGCAGTGTTAGGGTATCTGTTTACCTTTAAAATGATAAGTC
TCACTCAAGATTTTTATCTATGTATAAATATTTTGGTGTGCTACAAAAGCCTTTACAAATTATCAGTAGTAGTT
TTTTTTTTTTTTTTTTTTTTAAAGAATGAGCCGATATTGGCTTAGTGCTCACTAGGGGACATGCACATGGAAGC
TCACCTCTAAGAAAGGGCTGGGCAGATGGATTTATTTTTTCCCACCTGTGAATATGTAAAACAAAACCATTATCT
TTGAGGGAGTTTTTAATACCAATGACAGAACAGAGATTTGTGTGCTCATCTTAAGAGCCAGAGCCATATAAGCAT
CTTGGGAAAGCAAGTTTGAACCAGCTGCTGGTGTAATGTACAGTTATATTTGTCTATAAATGGAGCTGTTTATGG
CAATTTAATACCATTCTCTTTGTAAAGTGAATAAATATTCATCTTTTCCC
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FIGURE 924

RGCSGARAAMAAGGGGSCDPLAPAGVPCAFSPHSQAYFALASTDGHLRVWETANNRLHQEYVPSAHLSGTCTCLA
WAPARLQAKESPQRKKRKSEAVGMSNQTDLLALGTAVGSILLYSTVKGELHSKLISGGHDNRVNCIQWHQDSGCL
YSCSDDKHIVEWNVQTCKVKCKWKGDNSSVSSLCISPDGKMLLSAGRTIKLWVLETKEVYRHFTGHATPVSSLMF
TTIRPPNESQPFDGITGLYFLSGAVHDRLLNVWQVRSENKEKSAVMSFTVTDEPVYIDLTLSENKEEPVKLAVVC
RDGQVHLFEHILNGYCKKPLTSNCTIQIATPGKGKKSTPKPIPILAAGFCSDKMSLLLVYGSWFQPTIERVALNS
REPHMCLVRDISNCWAPKVETAITKVRTPVMNSEAKVLVPGIPGHHAAIKPAPPQTEQVESKRKSGGNEVSIEER
LGAMDIDTHKKGKEDLQTNSFPVLLTQGLESNDFEMLNKVLQTRNVNLIKKTVLRMPLHTIIPLLQELTKRLQGH
PNSAVLMVQWLKCVLTVHASYLSTLPDLVPQLGTLYQLMESRVKTFQKLSHLHGKLILLITQVTASEKTKGATSP
GQKAKLVYEEESSEEESDDEIADKDSEDNWDEDEEESESEKDEDVEEEDEDAEGKDEENGEDRDTASEKELNGDS
DLDPENESEEE

FIGURE 925

GCCACTTGCAGTGATGTTTTGTTCTTCCCTAGCTCCTGCAGATACCTAAAGATAGTCCATAATCTTTTTGGGTCT
CACTTCTGCAAATTGGAGTTCATACTTGCGCTATCTTTTGTTGAAGAACCCTCAAGA**TAG**TTGCAAAAAGTATTT
TGAAAAGTATAAAGTGATGGGTTTAATGTAAATGTTTTATTCAATACTACTATCCTCTAGACTAATTTGGTTGTA
GTTCACATTACAGTAGCTGCTTCGTAAGTGATTTTTG

1027/1629
FIGURE 926

ATCSDVLFFPSSCRYLKIVHNLFGSHFCKLEFILALSFVEEPSR

FIGURE 927

GAATCTCTTTCTCTCCCTTCAGAATCTTATCTTGGCTTTGGATCTTAGAAGAGAATCACTAACCAGAGACGAGAC
TCAGTGAGTGAGCAGGTGTTTTGGACAATGGACTGGTTGAGCCCATCCCTATTATAAAA**ATG**TCTCAGAGCAACC
GGGAGCTGGTGGTTGACTTTCTCTCCTACAAGCTTTCCCAGAAAGGATACAGCTGGAGTCAGTTTAGTGATGTGG
AAGAGAACAGGACTGAGGCCCCAGAAGGGACTGAATCGGAGATGGAGACCCCCAGTGCCATCAATGGCAACCCAT
CCTGGCACCTGGCAGACAGCCCCGCGGTGAATGGAGCCACTGCGCACAGCAGCAGTTTGGATGCCCGGGAGGTGA
TCCCCATGGCAGCAGTAAAGCAAGCGCTGAGGGAGGCAGGCGACGAGTTTGAACTGCGGTACCGGCGGGCATTCA
GTGACCTGACATCCCAGCTCCACATCACCCCAGGGACAGCATATCAGAGCTTTGAACAGGTAGTGAATGAACTCT
TCCGGGATGGGGTAAACTGGGGTCGCATTGTGGCCTTTTTCTCCTTCGGCGGGGCACTGTGCGTGGAAAGCGTAG
ACAAGGAGATGCAGGTATTGGTGAGTCGGATCGCAGCTTGGATGGCCACTTACCTGAATGACCACCTAGAGCCTT
GGATCCAGGAGAACGGCGGCTGGGATACTTTTGTGGAACTCTATGGGAACAATGCAGCAGCCGAGAGCCGAAAGG
GCCAGGAACGCTTCAACCGCTGGTTCCTGACGGGCATGACTGTGGCCGGCGTGGTTCTGCTGGGCTCACTCTTCA
GTCGGAAA**TGA**CCAGACACTGACCATCCACTCTACCCTCCCACCCCCTTCTCTGCTCCACCACATCCTCCGTCCA
GCCGCCATTGCCACCAGGAGAACCCG

FIGURE 928

MSQSNRELVVDFLSYKLSQKGYSWSQFSDVEENRTEAPEGTESEMETPSAINGNPSWHLADSPAVNGATAHSSSL
DAREVIPMAAVKQALREAGDEFELRYRRAFSDLTSQLHITPGTAYQSFEQVVNELFRDGVNWGRIVAFFSFGGAL
CVESVDKEMQVLVSRIAAWMATYLNDHLEPWIQENGGWDTFVELYGNNAAAESRKGQERFNRWFLTGMTVAGVVL
LGSLFSRK

FIGURE 929

CGCCTCTTCACGGCACTGGGATCCGCATCTGCCTGGGATCATCAAGCCCTAGAAGCTGGGTTTCTTTAAATTAGG
GCTGCCGTTTTCTGTTTCTCCCTGGGCTGCGGAAAGCCAGAAGATTTTATCTAGCTTATACAAGGCTGCTGGTGT
TCCCTCTTTTTTTCCACGAGGGTGTTTTTGGCTGCAATTGC**ATG**AAATCCCAATGGTGTAGACCAGTGGCGATGG
ATCTAGGAGTTTACCAACTGAGACATTTTTCAATTTCTTTCTTGTCATCCTTGCTGGGGACTGAAAACGCTTCTG
TGAGACTTGATAATAGCTCCTCTGGTGCAAGTGTGGTAGCTATTGACAACAAAATCGAGCAAGCTATGGATCTAG
TGAAAAGCCATTTGATGTATGCGGTCAGAGAAGAAGTGGAGGTCCTCAAAGAGCAAATCAAAGAACTAATAGAGA
AAAATTCCCAGCTGGAGCAGGAGAACAATCTGCTGAAGACACTGGCCAGTCCTGAGCAGCTTGCCCAGTTTCAGG
CCCAGCTGCAGACTGGCTCCCCCCCTGCCACCACCCAGCCACAGGGCACCACACAGCCCCCCGCCCAGCCAGCAT
CGCAGGGCTCAGGACCAACCGCA**TAG**CTGCCTATGCCCCCGCAGAACTGGCTGCTGCGTGTGAACTGAACAGACG
GAGAAGATGTGCTAGGGAGAATCTGCCTCCACAGTCACCCATTTCATTGCTCGCTGCGAAAGAGACGTGAGACTG
ACATATGCCATTATCTCTTTTCCAGTATTAAACACTCATATGCTTATGGCTTGGAGAAATTTCTTAGTTGGGTGA
ATTAAAGGTTAATCCGAGAATTAGCATGGATATACCGGGACCTCATGCAGCTTGGCAGATATCTGAGAAATGGTT
TAATTCATGCTCAGGAGCTGTGTGCCTTTCCATCCCTTCCGGCTCCCTACCCCTCACTTCCAAGGGTTCTCTCTC
CTGCTTGCGCTTAGTGTCCTACATGGGGTTGTGAAGCGATGGAGCTCCTCACTGGACTCGCCTCTCTCCTCTCCT
CCCCCCAGGAGGAACTTGAAAGGAGGGTAAAAAGACTAAAATGAGGGGGAACAGAGTTCACTGTACAAATTTGAC
AACTGTCACCAAAATTCATAAAAAACAATAGTACTGTGCCTCTTTCTTCTCAAACAATGGATGACACAAAACTAT
GAGAGTGACAAAATGGTGACAGGTAGCTGGGACCTAGGCTATCTTACCATGAAGGTTGTTTTGCTTATTGTATAT
TTGTGTATGTAGTGTAACTATTTTGTACAATAGAGGACTGTAACTACTATTTAGGTTGTACAGATTGAAATTTAG
TTGTTTCATTGGCTGTCTGAGGAGGTGTGGACTTTTATATATAGATCTACATAAAAACTGCTACATGACAAAAAC
CACACCTAAACCCCTTTTAAGAATTTGGCACAGTTACTCACTTTGTGTAATCTGAAATCTAGCTGCTGAATACGC
TGAAGTAAATCCTTGTTCACTGAAGTCTTTCAATTGAGCTGGTTGAATACTTTGAAAAATGCTCAGTTCTAACTA
ATGAAATGGATTTCCCAGTAGGGGTTTCTGCATATCACCTGTATAGTAGTTATATGCATATGTTTCTGTGCATGT
TCTCTACACAATTGTAAGGTGTCACTGTATTTAACTGTTGCACTTGTCAACTTTCAATAAAGCATATAAATGTTG

FIGURE 930

MKSQWCRPVAMDLGVYQLRHFSISFLSSLLGTENASVRLDNSSSGASVVAIDNKIEQAMDLVKSHLMYAVREEVE
VLKEQIKELIEKNSQLEQENNLLKTLASPEQLAQFQAQLQTGSPPATTQPQGTTQPPAQPASQGSGPTA

FIGURE 931

CAGAGGCAGGGAAAACCACGCAGAAGCAGGAGCTGAAGACCTCAGACCGGCACCAGGACAGCTTAATGAAGACAA
ACTGAAGGGGAAACTGAGATCCTTAGAAAACCAGCTATACACCTGTACCCAGAAATACTCCCCTTGGGGAATGAA
AAAAGTACTACTGGAGATGGAAGACCAGAAAAACAGCTATGAGCAGAAGGCCAAGGAGTCACTGCAGAAAGTGCT
GGAGGAGAAAATGAATGCAGAGCAGCAACTACAGAGCACACAGGTATGGGGATGCCACATAGACATGGGGCTGGG
GACTCCAGGCAGCTTGGGGAACAAGGGGAGCCAGCTGCACAACTCCCTGGAGCCCTCTCCTCT**CTGA**TCTCCCTC
AGCGATCCCTGGCCCTGGCAGAGCAGAAGTGTGAAGAGTGGAGGAGCCAGTATGAGGCTCTGAAGGAGGACTGGA
GGACCCTTGGGACCCAGCACAGGGAGCTGGAGAGCCAACTCCACGTGCTTCAGTCCAAACTGCAGGTACCAGGCA
CTGGGGGTGGGGAGGGAAGACAGGGTATGGGGAGGAGGGATGGTGATGAAAGAAGCTGTTCTGGATTAGGGACTC
CAAAGGCAGCTGACAGCATCTGGCTTTCAGTTCCTCAGTCACCACTACTTTGTACCAAATTCACTGTTTTGGCTC
TGAAATCTAATTTTGAGTTTAGCAAGGATGTCTGCATTGCTCATGCAAATGAACTAAGCGTTCATTGGAATGACA
CCATCACCACCCAAATGAAAAGAACTGGCTGGAATATTCATCAGCCTACTAATGTCATCTCCCAACCCACTCTCC
AAACTCCATCCCAAAAAAGCATCCAGTTCAGAATTGCCCACTGTTGGCAAAGAAAGAATGTCACTAATTTATTTA
CAGGTGAGTATTAACACTTTCTGCCAATGTGTATTTTAAGCAATTACATTTAGCAATTACAATTAGATTCTTGGC
ATCCTCAAGGGTTCCATCATCTTCAATCTGTCCTAAGCCTCAGTTTCCCCCATCTCTAGAATGAGGATAATAGTA
CCTACATCATAAGGTGGCTCTGAGTATTAAGTAAGATGATCCATGTCAAGCACTTAGCACAATGCCTGGCACACA
AAAACACTCAGTAAATATTAGCTATTATTTTGCATAGATTTATTTACCTGGTTTGGAATTTTGAGGATCCACCTC
AAAAGCTGATCTTTGTAATTTTCCTGAAGCAGGGCTCAGAACAGCCCACTTGATAAGAGACAGAGTATGTGAGTC
TTATCAAAGGAGTGAACCCAGCTGGTCACTCTGCGTGGTATCCACAGCTCAACCTTTGTTGTTTTCTTCTTCCCA
TCACCTATAAGGCAACTCCTATGAAGATTTTTGTGAGGGGTTTTTTAACTTTAAATCTTTGTGGAAAAAAAAAGA
CCCTAACCAAAAAAAAAACTGATACTGCCAGAAGTAGAAAAAAGAGAAAATGAAACATCCAGAAAACTAATGACT
TTGTATTCCTTAATTTGGTGATTTACCAAAGTGTCAAGACATGACTCCCACACCAATGACAACCACTTACATTTC
CCCTAGAATGGCAGATTTTTTAACGTACTGGGTTTCCTAAAGCAATTCTTATTTTATATATTCTAATTTATGTAC
ATGAATGTGTCACTTAGACCTGTCACTAGGGATGGTTTAGAAAATAAACTTACACTGCACATGCCTCAGTCCACT
TCAAAACTNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
NNNNNNNNNNNNNNNNNNNNAGACGCGAGTTCCTTGTGAATATCAAAAGTCTAATCTGCTGTTATAAATATGAGGA
ACAAAGCAAAGGGAAGAAATAGGAAAAAAGAAAGACTTCTCTATTTTCTCATCTCCCTAACATTCCTTCTATCTC
TAAAATTCCAGACTTTTCTACATTTTCCTCTTCCATGGTACCCGCCCCCCAACCTCCACCCCAACACTGACCATC
CTTCTATATTGGCCCCTCCTCCTCCTTACAGGGAGCAGATAGCAGGGACTTACAGATGAACCAGGCCCTGCGATT
TTTGGAAAATGAGCACCAGGAACTGCAGGCCAAGATTGAATGCCTGCAAGGGGACAGAGACCTGTGCAGCTTGGA
TACCCAGGACCTACAAGGTACTCTTCTCCTTGGAGGCCTTGAGTGCATGGCAGCCATGGCCAAGTGAGCTAAGAA
AAAAGAAACTGAATTAAGAGAAAGGCTTCAGCCTTTTATTTGTTTGCTTGATTGGTTGATTGGCTTTATAATCTC
ATTTTACCTTGAGGGAGAGGCAGGACTGTTTTAATCATCCAAAATTGAAAATTAATTTCACTGTAGTAGATAGAG
TATCTTGTTGTCTGAGCTCTCTTTTTTAGCCCATCCCTCTGGGCCAGATCACAGCTGCTCCCACATCAGTCACAT
ATGTCAAGGCCACAGTCCTAATTTGAAAGGGAAAGGTCAGTTGAAACACAAGGCATAGAGAAAGTCTCTCAGTCA
CATCCTCTGTGTCCGCTGATAGAGAGGACTAGATAGTGTGTAAACACAAGCCTCAATGCAACCCAACATTGTTGA
TGCACAAAAACCTGAGGTACTTGGCTTCTGGTTTACCTCTTCAGAACTGGGACACGAAGATAGAGCAACTTCCAA
TAGACACACGTTAAAGACCATGACAAGACAGCATCTATTACTAATTTCCATCCTAAGTACTGAGTTCATTAAGTC
TTGGGTTCCTTTATTTTGGCTTGCATTATTGCATTTTCAGATCAACTAAAAAGGTCAGAGGCAGAGAAACTCACC
CTGGTGACCAGAGTACAGCAGTTGCAGGGTTTGCTTCAAAATCAATCCTTACAGCTTCAAGAACAGGAGAAACTC
TTAACAAAGAAAGGTCAGCAAATTTATTACCACAAATTCTAAGATATTGCTCTTCTCTTACCTGCCTAGAGGCAG
CGGGATGGACTACATGACCTCCTGGAGTCCCAGCCAGTTCTGGGAGTCTGTTAAGTCCGGGATGTGTGGGAGCTT
TTTAAGGACTGATCATTGGCTCTGAGGACACTTCAACTAGTTAGCCTTCTATCTTGAGGTATATAAACTGTGAAA
AGGGTTCTATTCTCTCTGAAAGCACATGTCT

FIGURE 932

RGRENHAEAGAEDLRPAPGQLNEDKLKGKLRSLENQLYTCTQKYSPWGMKKVLLEMEDQKNSYEQKAKESLQKVL
EEKMNAEQQLQSTQVWGCHIDMGLGTPGSLGNKGSQLHNSLEPSPL

FIGURE 933

GTTGGAAATAACTATAACTTAAAGCAAATCTAACCCAGTAAGCTATCAAAAAGAAAAATTATATAATTACCAAGT
AGAGTTAATTTCACCTGAGTTCTATGAACATATTCATTATTAAAGGAAACCTCAAATTATTGTCCCATTGGAAGC
AAAATATACATTTATAAATAGCCATTTCTCGTTTTAAAAAACTAATAACATTGAAATAAACAGAAACTTAAGCTC
TTCTAGTTTGCCAAAAACCAGAAAGCAAACATCATATACTAAATGATGAAATGCCAAAGCCATTTCCATTATATC
AGAAACGAGACTAATACTTCCTGTCATCATTTACATGATTGTCACTATTATTAAGCATTGTTTTGGTAGTTCTAG
CCATTGCAGTAAGACAGTAGACAGAAAGTCAAATAATTGGCATAAATATTGGAAACAAAAAATTATTTCTACTTT
GAAATGATACAATAGAATAGCTGGAAAGCCCAGGGGGACTCTAGTAGAAAACAGCAATGAGGATTAAATGTAAGA
CACTTTGGAAAGCTGATGTGTGAGAAATGTACACAAACTAATAGCTTTCTCTTTATTAGTAGTCATCAGTTGAAA
ATGGAAATGACCAAGCAAAAATATTCAACAGAATGACAAAACTATTGGTTACACCTAGGAATAAATGTGTTAAAG
AAAGGTACAGAGTGAAGGTAATGACCCTTATGAAGAAAACTTGATATTATAAAAAGTAGTCCTTTTCTCCCTCAG
TTTTTGTCTTCAAAATGTTTACTTGGGACAGATCGTGGTTTACATGATGGTCCTCAAACATATTGTGAACAACAT
TAAAAAAAAAAGACACATTTTACTCAATAAGTAACATTTTTTGAGAAGCTACTATGTGCTAGGGACCTAGTTTTT
AGTGCAGTGGTCTCCAAAATAATGTACTGGCAGTATGGGAAGAGCGTTTAGAACACTGTACCTTTTTATTTGGGA
GGAGAAAAGAAACCTTTGTCAAATATTTAACACCTGCTGCCAGAGGTCTGTAGATTGATGATTGTGTGCCATGA
GTTACACACAGACTCCTAAATCAGTTTCACCTGTGGTGTCCTCATTCTGTTTACTTTGAGCATTTTGCATTCTAT
ATCTGCTTAGTTATATGGATTTATTCGTCCCATATAATATGTGTAGCCACATGGACACATGTTTTAAAAGGTTTT
AAATTCTGCAAGATAGTGACGATGATGTAAACACAAGAAAAGGGCAAATGGATACATTTTCCTACTCTGTGCTCA
TCAAACATATTACAGGATAAAATTATTGGCTATCTAATAAAAACACAGACTAATAAGACCTGATAAGTTGGACAA
AATGTTTAAAAATTAACATGAAGATGATAGGAAGTATGAATCTATATTCACTGTCATTA**ATG**TCAAACCTTTACC
TTATGGTATATTGTACTTTGAGAAATTA

FIGURE 934

MSNLYLMVYCTLRN

FIGURE 935A

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AAAATTGCGTTTGAGTTTGCCGCGAGCCGGGCCAATCGGTTTTGCCAACGCATGCCCACGTGCTGGCGAACAAAT
GTAAACACGGAGATCGTGTGCCGGGCACTTGGTTTCGTGGTGGGCAACTGTGCTGCTGTTTCTTTTGGCCGCGGA
CAAGGTCGGCAGAGGTGGACCCCTGCTTGGGAGAGCTCTTCTCGCTGTGCTGACACCCGCCCCTAACAGTCACCC
ACCCCGGGGAAATAATGGGGCTCGGAGGCCTCCTCCCAGCCAGTGTCCAGCCTAAGCACATCGGCTCCCGCAGTT
CAGAAAGGTCCCGAGGCCCGAGTCACCATTTCCGGCTCAGACCTCGACCCGGAACGTGGCTGCCCACTGCCACGC
CCACTACGCCCCAGTGGCTCGCCCCAGGGGACGAGGGGCAAGAAGCGGCCTCCGAGGGCAGCGGCCGAAGGCCAT
TCGGTCCCTGGCTCTTCCCAGCTCGCAGAGACCCGGAAGCGCTGCCCGGCCGCCTGCCCCTCTTCAGATCCCCCA
GCACCGGAGGAGCAGCGAGGGGGCTGCGTCCAGGCCGGCTTTCGGGTCGGCTTAGGCGAATCCAGCTCTCTTTTG
CCCCTCCCAGAAGGCCCAGCCCCGTCCGGGCGGTGTTCGGGCGGCGCCGGGCCGGGCCCCCCGCCGCCCCAGGCT
CGCTCATAGGCCCGGAACACCACAGCCCGCCCAGACTTGGCTGGCGCCGAGCCGGGGGTGGAGCCAGCGGGTTCC
CGCCAAAATCGCGTAGCTGGTCCTTCCCCGCGGGCTACGTCGCGCCCTCCTTTTTTTTTCAAACCCGGAGCTGC
ACTGGGATTGGTGGACTGGGCACTCACGTGGTTAACGGTCGCGGGAAGCCGCGGAGCCCGAACCTGAGACTGGAC
CTGAGGAGACCTCAGCCTCGGTGCTCGGGCCGCCCCGCCTCTGCCGGAAAGTCCGCGCCGCCGCTGCCGCCACCG
TCCGCAGCCCGAGCGCCCCGGAGCCGCAGGCCGCCGCCGCGCAGAGACGCCGCGGCTGCGACTAGGCGCGCCCAG
CCGCACGTGGCGGACCCGCCCCCAGGCCCGCAGTGTCCTGGACCCCGCAGGCCTCCGCTCTCCTGTCCTCGGCCC
CGTCCCCAGGGCCGCG**ATG**AGCTTCCTGAGCCGACAGCAGCCGCCGCCACCCCGCCGCGCCGGGGCGGCCTGCAC
CTTGCGGCAGAAGCTGATCTTCTCGCCCTGCAGCGACTGTGAGGAGGAGGAAGAAGAGGAGGAGGAGGAGGGCAG
CGGCCACAGCACCGGGGAGGACTCGGCCTTTCAAGAGCCCGACTCGCCGCTGCCGCCCGCGCGGAGCCCCACGGA
GCCCGGGCCCGAGCGCCGCCGCTCGCCCGGGCCGGCCCCCGGGAGCCCGGCGAGCTGGAGGAGGACCTGTTGCT
GCCCGGCGCCTGCCCGGGCGCGGACGAGGCGGGCGGTGGGGCGGAGGGCGACTCGTGGGAGGAGGAGGGCTTCGG
CTCCTCGTCGCCGGTCAAGTCGCCGGCGGCCCCCTACTTCCTGGGTAGCTCTTTCTCGCCGGTGCGCTGCGGCGG
CCCAGGAGATGCGTCGCCGCGGGGTTGCGGGGCGCGCCGGGCGGGCGAAGGCCGCCGCTCGCCGCGGCCGGACCA
CCCGGGCACCCCGCCACACAAGACCTTCCGCAAGCTGCGACTCTTCGACACCCCGCACACGCCCAAGAGTTTGCT
CTCCAAAGCTCGGGGAATTGATTCCAGCTCTGTTAAACTCCGGGGTAGTTCTCTCTTCATGGATACAGAAAAATC
AGGAAAAAGGGAATTTGATGTGCGACAGACTCCTCAAGTGAATATTAATCCTTTTACTCCGGATTCTTTGTTGCT
TCATTCCTCAGGACAGTGTCGTCGTAGAAAGAGAACGTATTGGAATGATTCCTGTGGTGAAGACATGGAAGCCAG
TGATTATGAGCTTGAAGATGAAACAAGACCTGCTAAGAGAATTACAATTACTGAAAGCAATATGAAGTCCCGGTA
TACAACAGAATTTCATGAGCTAGAGAAAATCGGCTCTGGAGAATTTGGTTCTGTATTTAAGTGTGTGAAGAGGCT
GGATGGATGCATTTATGCCATTAAGCGATCAAAAAAGCCATTGGCGGGCTCTGTTGATGAGCAGAACGCTTTGAG
AGAAGTATATGCTCATGCAGTGCTTGGACAGCATTCTCATGTAGTTCGATATTTCTCTGCGTGGGCAGAAGATGA
TCATATGCTTATACAGAATGAATATTGTAATGGTGGAAGTTTAGCTGATGCTATAAGTGAAAACTACAGAATCAT
GAGTTACTTTAAAGAAGCAGAGTTGAAGGATCTCCTTTTGCAAGTTGGCCGAGGCTTGAGGTATATTCATTCAAT
GTCTTTGGTTCACATGGATATAAAACCTAGTAATATTTTCATATCTCGAACCTCAATCCCAAATGCTGCCTCTGA
AGAAGGAGACGAAGATGATTGGGCATCCAACAAAGTTATGTTTAAAATAGGTGATCTTGGGCATGTAACAAGGAT
CTCCAGTCCACAAGTTGAAGAGGGCGATAGTCGTTTTCTTGCAAATGAAGTTTTACAGGAGAATTATACCCATCT
ACCAAAAGCAGATATTTTTGCGCTTGCCCTCACAGTGGTATGTGCTGCTGGTGCTGAACCTCTTCCGAGAAATGG
AGATCAATGGCATGAAATCAGACAGGGTAGATTACCTCGGATACCACAAGTGCTTTCCCAAGAATTTACAGAGTT
GCTAAAAGTTATGATTCATCCAGATCCAGAGAGAAGACCTTCAGCAATGGCACTGGTAAAGCATTCAGTATTGCT
GTCCGCTTCTAGAAAGAGTGCAGAACAATTACGAATAGAATTGAATGCCGAAAAGTTCAAAAATTCACTTTTACA
AAAAGAACTCAAGAAAGCACAGATGGCAAAAGCTGCAGCTGAGGAAAGAGCACTCTTCACTGACCGGATGGCCAC
TAGGTCCACCACCCAGAGTAATAGAACATCTCGACTTATTGGAAAGAAAATGAACCGCTCTGTCAGCCTTACTAT
ATAC**TGA**GCTACTCCTTTCCCACCTCCCCCTGAACACTGTGACAAGAGGAAGCTAGGTTGAAATCACTGATAGAA
TCCAGTTTGCAATTACTTTCTCGATTGGTGTCAGTAGTTTTACTGATTAGGACTTTTATTGTGAATTACAGTTGA
AAGCTGTATTTTGATGATTGCTATGTCAGGCTTTCATCTAATCTTACCAGTCTGTCTTCTGTAGGATGTGTCACT
GTTGGATGTTACACCAGCCTTTCCAGGGTTAACCACTGTGGTGGTGTGCTGCTTATAGTTTGCTGTTGCATTGTA
ATAAAAGGTGTCTTTCCCTGTAGTGACCTGTAAAAAGTACTCAAGGGCTTTATTACAGACATACCCTCCCTTTGA
AAAGGGACATGCTAAAAGACTCATTACTACTCAGCCTTCAATGTACCTGTGTGTCCATCTTATATTTCTTTTTTT
TTTTTAATTGTGAATTAGACTTGTATATCCCACTGGGAGCACTTTGTAGGCATTGCATGAACCATGGGATGATGA
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FIGURE 935B

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TTCTGTGGAGGTATTGCCTTGTGAATTTGCTGCTATTTTAGTTTTGTCTTTGCTGTAAACTTGTAGCATTAAACA
ATCATTGTTGTTAATAGGTCTTCTTTTTGAAACAATTATGTGAAATGTATAGCTGCTTTTGATGAAAAGCAGCTA
TTTGCCTTTTTTTTTTTCCTTTGAACTTTGAAGCTAGTGCATTGGAAAAATGCACCCTTTCCCTCCTTTGGAAT
GCTGTATTAATGTAGTATAATAATTACTGGTTTTGTAACTTGTTCTGGTAATGTCCTTCCCGGACTCTTTTTAAA
TGTCTCCCCCTAAGTTTTATACTTGATTGTATTATTAGTCTGTTTTTAAATGTTTTGCCCGGTTTTTCTCTTCAA
TATTTGTGTATATAAACCGATCTTCGTGATACTGTACATAGCTGTTTGAAATGCCAGAATGACTTCTGACATTCC
AAGTTTTTCACAAAATATATTTTATCTGTGATTAGCCATTTGACTAATAATACTGGCTAACAGATGTTGAAAAAA
ATTGTCTGTTTGTTTTCTCATTAATTTTGGTCTAAAACATGTTTGCACTTGTCTTTGACTTGTGTTTTATTAACA
TTGATTGGCATATTAAAAGTCACTCTGAGCTT
```

FIGURE 936

MSFLSRQQPPPPRRAGAACTLRQKLIFSPCSDCEEEEEEEEEEGSGHSTGEDSAFQEPDSPLPPARSPTEPGPER
RRSPGPAPGSPGELEEDLLLPGACPGADEAGGGAEGDSWEEEGFGSSSPVKSPAAPYFLGSSFSPVRCGGPGDAS
PRGCGARRAGEGRRSPRPDHPGTPPHKTFRKLRLFDTPHTPKSLLSKARGIDSSSVKLRGSSLFMDTEKSGKREF
DVRQTPQVNINPFTPDSLLLHSSGQCRRRKRTYWNDSCGEDMEASDYELEDETRPAKRITITESNMKSRYTTEFH
ELEKIGSGEFGSVFKCVKRLDGCIYAIKRSKKPLAGSVDEQNALREVYAHAVLGQHSHVVRYFSAWAEDDHMLIQ
NEYCNGGSLADAISENYRIMSYFKEAELKDLLLQVGRGLRYIHSMSLVHMDIKPSNIFISRTSIPNAASEEGDED
DWASNKVMFKIGDLGHVTRISSPQVEEGDSRFLANEVLQENYTHLPKADIFALALTVVCAAGAEPLPRNGDQWHE
IRQGRLPRIPQVLSQEFTELLKVMIHPDPERRPSAMALVKHSVLLSASRKSAEQLRIELNAEKFKNSLLQKELKK
AQMAKAAAEERALFTDRMATRSTTQSNRTSRLIGKKMNRSVSLTIY

FIGURE 937A

GAATTCGGCACGAGGTCACCCGGATAGGTAAAGGAAAAC**ATG**CCTGCCACACGGAAGCCAATGAGATATGGGCAT
ACAGAGGGACACACGGAGGTCTGTTTTGATGATTCTGGGAGTTTTATTGTGACTTGTGGAAGTGATGGTGATGTG
AGGATTTGGGAAGACTTGGATGATGATGATCCTAAGTTCATTAATGTTGGAGAAAAGGCATATTCATGTGCTTTG
AAGAGTGGAAAACTGGTCACTGCAGTTTCTAATAATACTATTCAAGTCCACACATTTCCTGAAGGAGTTCCAGAT
GGTATATTGACTCGCTTCACTACAAATGCAAACCATGTGGTCTTTAATGGGGATGGTACTAAAATTGCTGCTGGA
TCTAGTGATTTTCTAGTCAAAATTGTGGATGTGATGGATAGCAGCCAACAGAAAACATTTCGAGGACATGATGCC
CCTGTTTTAAGTCTTTCCTTTGATCCTAAGGACATCTTTCTGGCATCAGCTAGTTGTGATGGATCTGTCAGAGTG
TGGCAAATTTCAGATCAGACATGTGCTATTAGTTGGCCACTGCTACAAAAATGCAACGATGTGATAAATGCAAAA
TCAATCTGCAGACTTGCTTGGCAGCCAAAAAGTGGGAAGTTACTGGCAATTCCTGTGGAAAAATCTGTTAAGCTA
TATAGAAGAGAATCTTGGAGTCATCAATTTGATCTTTCAGATAATTTCATCTCTCAGACCCTCAATATAGTAACC
TGGTCTCCCTGTGGGCAATATTTAGCTGCAGGTAGTATTAATGGTCTAATCATAGTTTGGAATGTGGAAACCAAA
GACTGCATGGAAAGGGTGAAACATGAGAAAGGTTATGCAATTTGTGGTCTGGCATGGCATCCTACTTGTGGTCGA
ATATCGTATACTGATGCGGAAGGAAATCTAGGGCTTCTAGAGAATGTTTGTGACCCCAGTGGAAAGACATCAAGC
AGTAAGGTATCTAGCAGAGTGGAAAAGGATTATAATGATCTTTTTGATGGAGATGATATGAGTAATGCTGGTGAT
TTTCTAAATGACAATGCAGTTGAGATCCCTTCTTTTTCAAAAGGGATTATAAATGATGATGAGGATGATGAAGAC
CTCATGATGGCTTCAGGTCGTCCTAGACAGCGAAGTCACATCCTAGAAGATGATGAAAACTCAGTTGATATTTCA
ATGCTAAAAACTGGTTCTAGTCTTCTCAAAGAGGAGGAGGAAGATGGTCAAGAAGGCAGCATTCACAATCTACCA
CTTGTAACATCCCAAAGGCCATTTTATGATGGACCCATGCCAACTCCCCGGCAAAAGCCATTTCAGTCAGGTTCT
ACACCGTTGCATCTCACTCACAGATTCATGGTGTGGAACTCTATTGGAATTATTCGCTGCTATAATGATGAGCAA
GACAATGCCATAGATGTGGAGTTCCATGATACCTCCATACACCATGCAACACACTTATCAAACACTTTGAATTAT
ACAATAGCAGATCTTTCCCACGAAGCTATTTTGTTGGCATGTGAAAGCACTGATGAACTAGCAAGCAAGCTTCAC
TGCCTGCACTTTAGTTCTTGGGATTCAAGCAAAGAGTGGATAATAGACTTGCCTCAGAATGAGGATATTGAAGCC
ATATGTCTCGGTCAAGGATGGGCTGCTGCCGCTACTAGTGCCCTGCTTCTTCGATTGTTTACTATTGGAGGGGTT
CAAAAAGAGGTATTCAGCCTTGCTGGACCTGTGGTGTCAATGGCAGGACATGGAGAACAGCTTTTCATTGTTTAT
CACAGAGGTACAGGATTTGATGGGGATCAGTGCCTTGGAGTTCAACTGCTAGAGCTGGGGAAAAAGAAAAAACAA
ATTTTGCATGGTGACCCTCTTCCTCTTACAAGGAAATCCTACCTTGCATGGATTGGGTTTTCAGCTGAAGGTACC
CCTTGTTACGTGGATTCAGAAGGAATTGTTCGAATGCTTAACAGAGGACTTGGTAATACGTGGACTCCTATATGT
AATACAAGAGAGCACTGCAAAGGAAAATCTGATCACTACTGGGTGGTTGGTATCCATGAAAATCCCCAGCAACTA
AGGTGCATTCCTTGTAAAGGTTCTCGGTTTCCCCCAACCCTTCCACGCCCTGCTGTTGCTATATTATCCTTTAAG
CTTCCTTACTGTCAGATTGCAACAGAGAAAGGACAAATGGAGGAGCAATTTTGGCGTTCAGTTATATTTCACAAC
CACCTTGATTATTTAGCTAAAAATGGTTATGAATATGAAGAGCACTAAAAATCAAGCAACAAAGAGCAACAG
GAACTTTTAATGAAAATGCTTGCGCTTTCTTGTAAACTGGAGCGAGAATTCCGTTGTGTGGAACTTGCTGATCTA
ATGACTCAAAATGCTGTGAATTTAGCCATTAAATATGCTTCTCGCTCTCGGAAATTAATACTGGCTCAAAAACTA
AGTGAACTGGCTGTAGAGAAGGCAGCCGAATTGACAGCAACCCAGGTGGAAGAGGAAGAAGAAGAAGAAGATTTC
AGAAAAAAGCTGAATGCTGGTTACAGCAATACTGCTACAGAGTGGAGCCAACCAAGGTTCAGAAATCAAGTTGAA
GAAGATGCTGAGGACAGTGGAGAAGCTGATGATGAAGAAAAACCAGAAATACATAAGCCTGGACAGAACTCGTTT
TCCAAAAGTACAAATTCCTCTGATGTTTCAGCTAAGTCAGGTGCAGTTACCTTTAGCAGCCAAGGACGAGTAAAT
CCCTTTAAGGTATCAGCCAGTTCCAAAGAACCAGCCATGTCAATGAATTCAGCACGTTCAACTAATATTTTAGAC
AATATGGGCAAATCATCCAAGAAATCCACTGCACTTAGTCGAACTACAAATAATGAAAGTCTCCCATTATAAAG
CCTCTGATTCCAAAGCCGAAGCCTAAGCAGGCATCTGCAGCATCCTATTTCCAGAAAAGAAATTCTCAAACTAAT
AAAACTGAGGAAGTGAAAGAAGAAATCTTAAAAATGTATTATCTGAAACCCCAGCTATATGTCCTCCTCAAAAC
ACTGAAAACCAAAGGCCAAAGACCGGGTTCCAGATGTGGTTAGAAGAAAATAGAAGTAATATTTTGTCTGACAAT
CCTGACTTTTCAGATGAAGCAGACATAATAAAAGAAGGAATGATTCGATTTAGAGTATTGTCAACTGAAGAAAGA
AAGGTGTGGGCTAACAAAGCCAAAGGAGAAACGGCAAGTGAAGGAACTGAAGCAAAGAAGCGAAACGTGTGGTT
GATGAAAGTGATGAAACAGAAAACCAGGAAGAAAAAGCAAAGAGAACCTGAATTTGTCTAAAAAGCAGAAACCT
TTAGATTTTTCTACAAATCAGAAACTATCAGCTTTTGCATTTAAGCAGGAG**TAA**AGGAAGAAAGTGACCCTAGGG
AAGTAATGGATTTTTTTTACTCATCTTTGAATATAGACTCGAGTCTTTGGGAAACTCATTATATATATATTTTTT
AAAGAGTTTGAAGCAACTGTTTGTCTTTATAAGATAATGTAGTAATTATATTGGTGTAGGTAACAGGACATATGT

FIGURE 937B

AAAAACTATCATCTTTGCAGATTACTCTGCCTCCAAATGCAGGGCCTTTCAGAGATGCATTGTGATTGTAATTAC
TGAGTTGAAGCTCCAACCAATTTGAATTTGTTTCTTAACCTTGAAAAATCATTAAAGCCAAGGTATTAAAACCTT
TGTGCATTAATACCTTCTAGGGGTTTGGTTCATTTGGTTTTTGTCATGTGCAAGGAAGGACAATAGTCCTCTTTC
CAAGTGTGTTAGCATAGACTTCTCTATATGTTTCTACTAGACCTAGGGGATGACGTCTTTTAATAATACTGGCCC
TAAACATGTAAATAATCTTGTAGGTGAGACTTTTTCTTTTGTGTTTCGGAAATTTCCTATGTGGCTTTCAGTTGT
CTGTTTGTATAGCCTGGATTTTTTTGAGGTAAATGAAACTTTCTCATTTGTAAAAAAAAAAAAAAAAAAACTCGAG

FIGURE 938

MPATRKPMRYGHTEGHTEVCFDDSGSFIVTCGSDGDVRIWEDLDDDDPKFINVGEKAYSCALKSGKLVTAVSNNT
IQVHTFPEGVPDGILTRFTTNANHVVFNGDGTKIAAGSSDFLVKIVDVMDSSQQKTFRGHDAPVLSLSFDPKDIF
LASASCDGSVRVWQISDQTCAISWPLLQKCNDVINAKSICRLAWQPKSGKLLAIPVEKSVKLYRRESWSHQFDLS
DNFISQTLNIVTWSPCGQYLAAGSINGLIIVWNVETKDCMERVKHEKGYAICGLAWHPTCGRISYTDAEGNLGLL
ENVCDPSGKTSSSKVSSRVEKDYNDLFDGDDMSNAGDFLNDNAVEIPSFSKGIINDDEDDEDLMMASGRPRQRSH
ILEDDENSVDISMLKTGSSLLKEEEEDGQEGSIHNLPLVTSQRPFYDGPMPTPRQKPFQSGSTPLHLTHRFMVWN
SIGIIRCYNDEQDNAIDVEFHDTSIHHATHLSNTLNYTIADLSHEAILLACESTDELASKLHCLHFSSWDSSKEW
IIDLPQNEDIEAICLGQGWAAAATSALLLRLFTIGGVQKEVFSLAGPVVSMAGHGEQLFIVYHRGTGFDGDQCLG
VQLLELGKKKKQILHGDPLPLTRKSYLAWIGFSAEGTPCYVDSEGIVRMLNRGLGNTWTPICNTREHCKGKSDHY
WVVGIHENPQQLRCIPCKGSRFPPTLPRPAVAILSFKLPYCQIATEKGQMEEQFWRSVIFHNHLDYLAKNGYEYE
ESTKNQATKEQQELLMKMLALSCKLEREFRCVELADLMTQNAVNLAIKYASRSRKLILAQKLSELAVEKAAELTA
TQVEEEEEEDFRKKLNAGYSNTATEWSQPRFRNQVEEDAEDSGEADDEEKPEIHKPGQNSFSKSTNSSDVSAKS
GAVTFSSQGRVNPFKVSASSKEPAMSMNSARSTNILDNMGKSSKKSTALSRTTNNEKSPIIKPLIPKPKPKQASA
ASYFQKRNSQTNKTEEVKEENLKNVLSETPAICPPQNTENQRPKTGFQMWLEENRSNILSDNPDFSDEADIIKEG
MIRFRVLSTEERKVWANKAKGETASEGTEAKKRKRVVDESDETENQEEKAKENLNLSKKQKPLDFSTNQKLSAFA
FKQE

FIGURE 939

CTTGTCTCCCCTGGTTTGTGAAGTGCGGAAAACCAGAGGCGCAGTC**ATG**TCGGGATTCGACGATCCTGGCATTTT
CTACAGCGACAGCTTCGGGGGCGACGCCCAGGCCGACGAGGGGCAGGCCCGCAAATCGCAGCTGCAGAGGCGCTT
CAAGGAGTTCCTGCGGCAGTACCGAGTGGGCACCGACCGCACGGGCTTCACCTTCAAATACAGGGATGAACTCAA
GCGGCATTACAACCTGGGGGAGTACTGGATTGAGGTGGAGATGGAGGATCTGGCCAGCTTTGATGAGGACCTGGC
CGACTACTTGTACAAGCAGCCAGCCGAGCACCTGCAGCTGCTGGAGGAAGCTGCCAAGGAGGTAGCTGATGAGGT
GACCCGGCCCCGGCCTTCTGGGGAGGAGGTGCTCCAGGACATCCAGGTCATGCTCAAGTCGGACGCCAGCCCTTC
CAGCATTCGTAGCCTGAAGTCGGACATGATGTCACACCTGGTGAAGATCCCTGGCATCATCATCGCGGCCTCTGC
GGTCCGTGCCAAGGCCACCCGCATCTCTATCCAGTGCCGCAGCTGCCGCAACACCCTCACCAACATTGCCATGCG
CCCTGGCCTCGAGGGCTATGCCCTGCCCAGGAAGTGCAACACAGATCAGGCTGGGCGCCCCAAATGCCCATTGGA
CCCGTACTTCATCATGCCCGACAAATGCAAATGCGTGGACTTCCAGACCCTGAAGCTGCAGGAGCTGCCTGATGC
AGTCCCCCACGGGGAGATGCCCAGACACATGCAGCTCTACTGCGACAGGTACCTGTGTGACAAGGTCGTCCCTGG
GAACAGGGTTACCATCATGGGCATCTACTCCATCAAGAAGTTTGGCCTGACCACCAGCAGGGGCCGTGACAGGGT
GGGCGTGGGCATCCGAAGCTCCTACATCCGTGTCCTGGGCATCCAGGTGGACACAGATGGCTCTGGCCGCAGCTT
TGCTGGGGCCGTGAGCCCCCAGGAGGAGGAGGAGTTCCGTCGCCTGGCTGCCCTCCCAAATGTCTATGAGGTCAT
CTCCAAGAGCATCGCCCCCTCCATCTTTGGGGGCACAGACATGAAGAAGGCCATTGCCTGCCTGCTCTTTGGGGG
CTCCCGAAAGAGGCTCCCTGATGGACTTACTCGCCGAGGAGACATCAACCTGCTGATGCTAGGGGACCCTGGGAC
AGCCAAGTCCCAGCTTCTGAAGTTTGTGGAGAAGTGTTCTCCCATTGGGGTATACACGTCTGGGAAAGGCAGCAG
CGCAGCTGGACTGACAGCCTCGGTGATGAGGGACCCTTCGTCCCGGAATTTCATCATGGAGGGCGGAGCCATGGT
CCTGGCCGATGGTGGGGTCGTCTGTATTGACGAGTTTGACAAGATGCGAGAAGATGACCGTGTGGCAATCCACGA
AGCCATGGAGCAGCAGACCATCTCTATCGCCAAGGCTGGGATCACCACCACCCTGAACTCCCGCTGCTCCGTCCT
GGCTGCTGCCAACTCAGTGTTCGGCCGCTGGGATGAGACGAAGGGGGAGGACAACATTGACTTCATGCCCACCAT
CTTGTCGCGCTTCGACATGATCTTCATCGTCAAGGATGAGCACAATGAGGAGAGGGATGTGATGCTGGCCAAGCA
TGTCATCACTCTGCACGTGAGCGCACTGACACAGACACAGGCTGTGGAGGGCGAGATTGACCTGGCCAAGCTGAA
GAAGTTTATTGCCTACTGCCGAGTGAAATGTGGCCCCCGGCTGTCAGCAGAGGCTGCAGAGAAACTGAAGAACCG
CTACATCATCATGCGGAGCGGGGCCCGTCAGCACGAGAGGGACAGTGACCGCCGCTCCAGCATCCCCATCACTGT
GCGGCAGCTGGAGGCCATTGTGCGCATCGCGGAAGCCCTCAGCAAGATGAAGCTGCAGCCCTTCGCCACAGAGGC
AGATGTGGAGGAGGCCCTGCGGCTCTTCCAAGTGTCCACGTTGGATGCTGCCTTGTCCGGTACCCTGTCAGGGGT
GGAGGGCTTCACCAGCCAGGAGGACCAGGAGATGCTGAGCCGCATCGAGAAGCAGCTCAAGCGCCGCTTTGCCAT
TGGCTCCCAGGTGTCTGAGCACAGCATCATCAAGGACTTCACCAAGCAGAAATACCCGGAGCACGCCATCCACAA
GGTGCTGCAGCTCATGCTGCGGCGCGGCGAGATCCAGCATCGCATGCAGCGCAAGGTTCTCTACCGCCTCAAG**TG**
AGTCGCGCCGCCTCACTGGACTCATGGACTCGCCCACGCCTCGCCCCTCCTGCCGCTGCCTGCCATTGACAATGT
TGCTGGGACCTCTGCCTCCCCACTGCAGCCCTCGAACTTCCCAGGCACCCTCCTTTCTGCCCCAGAGGAAGGAGC
TGTAGTGTCCTGCTGCCTCTGGGCGCCCGCCTCTAGCGCGGTTCTGGGAAGTGTGCTTTTGGCATCCGTTAATAA
TAAAGCCACGGTGTGTTCAGGTAAAAAAAAAAAAAAAA

FIGURE 940

MSGFDDPGIFYSDSFGGDAQADEGQARKSQLQRRFKEFLRQYRVGTDRTGFTFKYRDELKRHYNLGEYWIEVEME
DLASFDEDLADYLYKQPAEHLQLLEEAAKEVADEVTRPRPSGEEVLQDIQVMLKSDASPSSIRSLKSDMMSHLVK
IPGIIIAASAVRAKATRISIQCRSCRNTLTNIAMRPGLEGYALPRKCNTDQAGRPKCPLDPYFIMPDKCKCVDFQ
TLKLQELPDAVPHGEMPRHMQLYCDRYLCDKVVPGNRVTIMGIYSIKKFGLTTSRGRDRVGVGIRSSYIRVLGIQ
VDTDGSGRSFAGAVSPQEEEEFRRLAALPNVYEVISKSIAPSIFGGTDMKKAIACLLFGGSRKRLPDGLTRRGDI
NLLMLGDPGTAKSQLLKFVEKCSPIGVYTSGKGSSAAGLTASVMRDPSSRNFIMEGGAMVLADGGVVCIDEFDKM
REDDRVAIHEAMEQQTISIAKAGITTTLNSRCSVLAAANSVFGRWDETKGEDNIDFMPTILSRFDMIFIVKDEHN
EERDVMLAKHVITLHVSALTQTQAVEGEIDLAKLKKFIAYCRVKCGPRLSAEAAEKLKNRYIIMRSGARQHERDS
DRRSSIPITVRQLEAIVRIAEALSKMKLQPFATEADVEEALRLFQVSTLDAALSGTLSGVEGFTSQEDQEMLSRI
EKQLKRRFAIGSQVSEHSIIKDFTKQKYPEHAIHKVLQLMLRRGEIQHRMQRKVLYRLK

FIGURE 941

GAATTCGGGCGTGGGCGCGGGGGCGCGGCGTGCGGCACGCTGCAGGGCTGAAGCGGCGGCGGCGGTGGGGACTGC
ACGTAGCCCGGCGCTCGGC**ATG**GCTCTCCTGGTGCTCGGTCTGGTGAGCTGTACCTTCTTTCTGGCAGTGAATGG
TCTGTATTCCTCTAGTGATGATGTGATCGAATTAACTCCATCAAATTTCAACCGAGAAGTTATTCAGAGTGATAG
TTTGTGGCTTGTAGAATTCTATGCTCCATGGTGTGGTCACTGTCAAAGATTAACACCAGAATGGAAGAAAGCAGC
AACTGCATTAAAAGATGTTGTCAAAGTTGGTGCAGTTGATGCAGATAAGCATCATTCCCTAGGAGGTCAGTATGG
TGTTCAGGGATTTCCTACCATTAAGATTTTTGGATCCAACAAAAACAGACCAGAAGATTACCAAGGTGGCAGAAC
TGGTGAAGCCATTGTAGATGCTGCGCTGAGTGCTCTGCGCCAGCTCGTGAAGGATCGCCTCGGGGGACGGAGCGG
AGGATACAGTTCTGGAAAACAAGGCAGAAGTGATAGTTCAAGTAAGAAGGATGTGATTGAGCTGACAGACGACAG
CTTTGATAAGAATGTTCTGGACAGTGAAGATGTTTGGATGGTTGAGTTCTATGCTCCTTGGTGTGGACACTGCAA
AAACCTAGAGCCAGAGTGGGCTGCCGCAGCTTCAGAAGTAAAAGAGCAGACGAAAGGAAAAGTGAAACTGGCAGC
TGTGGATGCTACAGTCAATCAGGTTCTGGCCTCCCGATACGGGATTAGAGGATTTCCTACAATCAAGATATTTCA
GAAAGGCGAGTCTCCTGTGGATTATGACGGTGGGCGGACAAGATCCGACATCGTGTCCCGGGCCCTTGATTTGTT
TTCTGATAACGCCCCACCTCCTGAGCTGCTTGAGATTATCAACGAGGACATTGCCAAGAGGACGTGTGAGGAGCA
CCAGCTCTGTGTTGTGGCTGTGCTGCCCCATATCCTTGATACTGGAGCTGCAGGCAGAAATTCTTATCTGGAAGT
TCTTCTGAAGTTGGCAGACAAATACAAAAAGAAAATGTGGGGGTGGCTGTGGACAGAAGCTGGAGCCCAGTCTGA
ACTTGAGACCGCGTTGGGGATTGGAGGGTTTGGGTACCCCGCCATGGCCGCCATCAATGCACGCAAGATGAAATT
TGCTCTGCTAAAAGGCTCCTTCAGTGAGCAAGGCATCAACGAGTTTCTCAGGGAGCTCTCTTTTGGGCGTGGCTC
CACGGCACCTGTAGGAGGCGGGGCTTTCCCTACCATCGTTGAGAGAGAGCCTTGGGACGGCAGGGATGGCGAGCT
TCCCGTGGAGGATGACATTGACCTCAGTGATGTGGAGCTTGATGACTTAGGGAAAGATGAGTTG**TGA**GAGCCACA
ACAGAGGCTTCAGACCATTTTCTTTTCTTGGGAGCCAGTGGATTTTTCCAGCAGTGAAGGGACATTCTCTACTTT
CTTTTCTTGGGAGCCAGTGGATTTTTCCAGCAGTGAAGGGACATTCTCTACACTCAGATGACTCTACCAGTGGCC
TTTTAACCAAGAAGTAGTACTTGATTGGTCATTTGAAAACACTGCAACAGTGAACTTTTGCATCTCAAGAAAACA
TTGAAAAATTCTATGAATTGTTGTAGCCGGTGAATTGAGTCGTATTCTGTCACATAATATTTTGAAGAAAACTTG
GCTGTCGAAACATTTTTCTCTCTGACTGCTGCTTGAATGTTCTTGGAGGCTGTTTCTTATGTATGGGTTTTTTTT
AATGTGATCCCTTCATTTGAATATTAATGGCTTTTTCCATTAAAGAATAAATTGGAAAAAAGAAAAAAAAAAAAA
GGAATTC

FIGURE 942

MALLVLGLVSCTFFLAVNGLYSSSDDVIELTPSNFNREVIQSDSLWLVEFYAPWCGHCQRLTPEWKKAATALKDV
VKVGAVDADKHHSLGGQYGVQGFPTIKIFGSNKNRPEDYQGGRTGEAIVDAALSALRQLVKDRLGGRSGGYSSGK
QGRSDSSSKKDVIELTDDSFDKNVLDSEDVWMVEFYAPWCGHCKNLEPEWAAAASEVKEQTKGKVKLAAVDATVN
QVLASRYGIRGFPTIKIFQKGESPVDYDGGRTRSDIVSRALDLFSDNAPPPELLEIINEDIAKRTCEEHQLCVVA
VLPHILDTGAAGRNSYLEVLLKLADKYKKKMWGWLWTEAGAQSELETALGIGGFGYPAMAAINARKMKFALLKGS
FSEQGINEFLRELSFGRGSTAPVGGGAFPTIVEREPWDGRDGELPVEDDIDLSDVELDDLGKDEL

FIGURE 943

GCGACCGCTCGTCCGCCCGGCTTGAGGCCCGCGGGGAGCGCGCCGCAATTCGTCGGCCCGCGGGGGGGCGGCCTC
CCGGCATCTTCGCGGCGACCAAGGACTACCAGGAAGGGGAGCGGCTGGG**ATG**GCGCGTCCGCGGCCCCGCGAGTA
CAAAGCGGGCGACCTGGTCTTCGCCAAGATGAAGGGCTACCCGCACTGGCCGGCCCGGATTGATGAACTCCCAGA
GGGCGCTGTGAAGCCTCCAGCAAACAAGTATCCTATCTTCTTTTTTGGCACCCATGAAACTGCATTTCTAGGTCC
CAAAGACCTTTTTCCATATAAGGAGTACAAAGACAAGTTTGGAAAGTCAAACAAACGGAAAGGATTTAACGAAGG
ATTGTGGGAAATAGAAAATAACCCAGGAGTAAAGTTTACTGGCTACCAGGCAATTCAGCAACAGAGCTCTTCAGA
AACTGAGGGAGAAGGTGGAAATACTGCAGATGCAAGCAGTGAGGAAGAAGGTGATAGAGTAGAAGAAGATGGAAA
AGGCAAAAGAAAGAATGAAAAGCAGGCTCAAAACGGAAAAAGTCATATACTTCAAAGAAATCCTCTAAACAGTC
CCGGAAATCTCCAGGAGATGAAGATGACAAAGACTGCAAAGAAGAGGAAACAAAAGCAGCTCTGAGGGTGGAGA
TGCGGGCAACGACACAAGAAACACAACTTCAGACTTGCAGAAAACCAGTGAAGGGACC**TAA**CTACCATAATGAAT
GCTGCATATTAAGAGAAACCACAAGAAGGTTATATGTTTGGTTGTCTAATATTCTTGGATTTGATATGAACCAAC
ACATAGTCCTTGTTGTCATTGACAGAACCCCAGTTTGTATGTACATTATTCATATTCCTCTCTGTTGTGTTTCGG
GGGGAAAAGACATTTTAGCCTTTTTTAAAAGTTACTGATTTAATTTCATGTTATTTGGTTGCATGAAGTTGCCCT
TAACCACTAAGGATTATCAAGATTTTTGCGCAGACTTATACATGTCTAGGATCCTTTTATCAAGGCAGTTATGAT
CATCGTTTTCCTGCCTTGACCCCACCATCATCAAACACTCAGTTAAATATAAATTAACATTTTTTAGATGACCAC
TCAACATAATGCTTAAGAATGGAATTTCCTCTCTGTGACAGAACCCAGGAATTAATTCCTAAATACATAACGTTG
GTATATTGAAGACGAAATTAAAATTGGTCCTTCAGTTTTGAGGCCATGTGTAAAGTTTAACCATATTGTAAAATA
TCTATTCCGTATTAGAAATAGCTAGTTGACAGCTTATACTTCTCAACATTCATATTGTTATGTACACAAACTAAG
TTTCTATATGTGAAGTTAGTGAGTCTTTTGTGTTACTCCAAAATAAAGGCAATGATTTATTTTTTTCCCAGTGC
CAATACAATTTTGAGCTAAGCACTCAAGGTGGATACTTTACATTTTAAAGCTGGAATCAGCAACAGCCCTATGGG
AAACCAGACAAAGCATTGACTTTTAAATGTAGACTTTTAAAATAAACTGTTTTCTTTTGGAACTACAATTAGAAT
AGTTAATATTCATCCTTAAACCATTATTATGTGTACATTATTGTTGCTATTGTGATAATAGAGAATTTTATTTAT
TTTTATGCCAGCTTATATTGTGAGAACACATTTAGTCAGTTTGGGTTTTATCAATCCTGTTAATGCTTGTCCTTG
GAACATCTTTCGCGTATTCACGGTTTGTAGTTGAAAAGTTTACTGTAAAAAAATCAAAAACAAAAAAATGTATTG
TTTTTACAGAATAAATTTATTGGAATGTGA

FIGURE 944

MARPRPREYKAGDLVFAKMKGYPHWPARIDELPEGAVKPPANKYPIFFFGTHETAFLGPKDLFPYKEYKDKFGKS
NKRKGFNEGLWEIENNPGVKFTGYQAIQQQSSSETEGEGGNTADASSEEEGDRVEEDGKGKRKNEKAGSKRKKSY
TSKKSSKQSRKSPGDEDDKDCKEEENKSSSEGGDAGNDTRNTTSDLQKTSEGT

FIGURE 945A

AATTCTCGAGCTCGTCGACCGGTCGACGAGCTCGAGGGTCGACGAGCTCGAGGGCGCGCGCCCGGCCCCCACCCC
TCGCAGCACCCCGCGCCCCGCGCCCTCCCAGCCGGGTCCAGCCGGAGCCATGGGGCCGGAGCCGCAGTGAGCACC
ATGGAGCTGGCGGCCTTGTGCCGCTGGGGGCTCCTCCTCGCCCTCTTGCCCCCCGGAGCCGCGAGCACCCAAGTG
TGCACCGGCACAGACATGAAGCTGCGGCTCCCTGCCAGTCCCGAGACCCACCTGGACATGCTCCGCCACCTCTAC
CAGGGCTGCCAGGTGGTGCAGGGAAACCTGGAACTCACCTACCTGCCCACCAATGCCAGCCTGTCCTTCCTGCAG
GATATCCAGGAGGTGCAGGGCTACGTGCTCATCGCTCACAACCAAGTGAGGCAGGTCCCACTGCAGAGGCTGCGG
ATTGTGCGAGGCACCCAGCTCTTTGAGGACAACTATGCCCTGGCCGTGCTAGACAATGGAGACCCGCTGAACAAT
ACCACCCCTGTCACAGGGGCCTCCCCAGGAGGCCTGCGGGAGCTGCAGCTTCGAAGCCTCACAGAGATCTTGAAA
GGAGGGGTCTTGATCCAGCGGAACCCCCAGCTCTGCTACCAGGACACGATTTTGTGGAAGGACATCTTCCACAAG
AACAACCAGCTGGCTCTCACACTGATAGACACCAACCGCTCTCGGGCCTGCCACCCCTGTTCTCCGATGTGTAAG
GGCTCCCGCTGCTGGGGAGAGAGTTCTGAGGATTGTCAGAGCCTGACGCGCACTGTCTGTGCCGGTGGCTGTGCC
CGCTGCAAGGGGCCACTGCCCACTGACTGCTGCCATGAGCAGTGTGCTGCCGGCTGCACGGGCCCCAAGCACTCT
GACTGCCTGGCCTGCCTCCACTTCAACCACAGTGGCATCTGTGAGCTGCACTGCCCAGCCCTGGTCACCTACAAC
ACAGACACGTTTGAGTCCATGCCCAATCCCGAGGGCCGGTATACATTCGGCGCCAGCTGTGTGACTGCCTGTCCC
TACAACTACCTTTCTACGGACGTGGGATCCTGCACCCTCGTCTGCCCCCTGCACAACCAAGAGGTGACAGCAGAG
GATGGAACACAGCGGTGTGAGAAGTGCAGCAAGCCCTGTGCCCGAGTGTGCTATGGTCTGGGCATGGAGCACTTG
CGAGAGGTGAGGGCAGTTACCAGTGCCAATATCCAGGAGTTTGCTGGCTGCAAGAAGATCTTTGGGAGCCTGGCA
TTTCTGCCGGAGAGCTTTGATGGGGACCCAGCCTCCAACACTGCCCCGCTCCAGCCAGAGCAGCTCCAAGTGTTT
GAGACTCTGGAAGAGATCACAGGTTACCTATACATCTCAGCATGGCCGGACAGCCTGCCTGACCTCAGCGTCTTC
CAGAACCTGCAAGTAATCCGGGGACGAATTCTGCACAATGGCGCCTACTCGCTGACCCTGCAAGGGCTGGGCATC
AGCTGGCTGGGGCTGCGCTCACTGAGGGAACTGGGCAGTGGACTGGCCCTCATCCACCATAACACCCACCTCTGC
TTCGTGCACACGGTGCCCTGGGACCAGCTCTTTCGGAACCCGCACCAAGCTCTGCTCCACACTGCCAACCGGCCA
GAGGACGAGTGTGTGGGCGAGGGCCTGGCCTGCCACCAGCTGTGCGCCCGAGGGCACTGCTGGGGTCCAGGGCCC
ACCCAGTGTGTCAACTGCAGCCAGTTCCTTCGGGGCCAGGAGTGCGTGGAGGAATGCCGAGTACTGCAGGGGCTC
CCCAGGGAGTATGTGAATGCCAGGCACTGTTTGCCGTGCCACCCTGAGTGTCAGCCCCAGAATGGCTCAGTGACC
TGTTTTGGACCGGAGGCTGACCAGTGTGTGGCCTGTGCCCACTATAAGGACCCTCCCTTCTGCGTGGCCCGCTGC
CCCAGCGGTGTGAAACCTGACCTCTCCTACATGCCCATCTGGAAGTTTCCAGATGAGGAGGGCGCATGCCAGCCT
TGCCCCATCAACTGCACCCACTCCTGTGTGGACCTGGATGACAAGGGCTGCCCCGCCGAGCAGAGAGCCAGCCCT
CTGACGTCCATCGTCTCTGCGGTGGTTGGCATTCTGCTGGTCGTGGTCTTGGGGGTGGTCTTTGGGATCCTCATC
AAGCGACGGCAGCAGAAGATCCGGAAGTACACGATGCGGAGACTGCTGCAGGAAACGGAGCTGGTGGAGCCGCTG
ACACCTAGCGGAGCGATGCCCAACCAGGCGCAGATGCGGATCCTGAAAGAGACGGAGCTGAGGAAGGTGAAGGTG
CTTGGATCTGGCGCTTTTGGCACAGTCTACAAGGGCATCTGGATCCCTGATGGGGAGAATGTGAAAATTCCAGTG
GCCATCAAAGTGTTGAGGGAAAACACATCCCCCAAAGCCAACAAAGAAATCTTAGACGAAGCATACGTGATGGCT
GGTGTGGGCTCCCCATATGTCTCCCGCCTTCTGGGCATCTGCCTGACATCCACGGTGCAGCTGGTGACACAGCTT
ATGCCCTATGGCTGCCTCTTAGACCATGTCCGGGAAAACCGCGGACGCCTGGGCTCCCAGGACCTGCTGAACTGG
TGTATGCAGATTGCCAAGGGGATGAGCTACCTGGAGGATGTGCGGCTCGTACACAGGGACTTGGCCGCTCGGAAC
GTGCTGGTCAAGAGTCCCAACCATGTCAAAATTACAGACTTCGGGCTGGCTCGGCTGCTGGACATTGACGAGACA
GAGTACCATGCAGATGGGGGCAAGGTGCCCATCAAGTGGATGGCGCTGGAGTCCATTCTCCGCCGGCGGTTCACC
CACCAGAGTGATGTGTGGAGTTATGGTGTGACTGTGTGGGAGCTGATGACTTTTGGGGCCAAACCTTACGATGGG
ATCCCAGCCCGGGAGATCCCTGACCTGCTGGAAAAGGGGGAGCGGCTGCCCCAGCCCCCCATCTGCACCATTGAT
GTCTACATGATCATGGTCAAATGTTGGATGATTGACTCTGAATGTCGGCCAAGATTCCGGGAGTTGGTGTCTGAA
TTCTCCCGCATGGCCAGGGACCCCCAGCGCTTTGTGGTCATCCAGAATGAGGACTTGGGCCCAGCCAGTCCCTTG
GACAGCACCTTCTACCGCTCACTGCTGGAGGACGATGACATGGGGGACCTGGTGGATGCTGAGGAGTATCTGGTA
CCCCAGCAGGGCTTCTTCTGTCCAGACCCTGCCCCGGGCGCTGGGGGCATGGTCCACCACAGGCACCGCAGCTCA
TCTACCAGGAGTGGCGGTGGGGACCTGACACTAGGGCTGGAGCCCTCTGAAGAGGAGGCCCCCAGGTCTCCACTG
GCACCCTCCGAAGGGGCTGGCTCCGATGTATTTGATGGTGACCTGGGAATGGGGGCAGCCAAGGGGCTGCAAAGC
CTCCCCACACATGACCCCAGCCCTCTACAGCGGTACAGTGAGGACCCCACAGTACCCCTGCCCTCTGAGACTGAT
GGCTACGTTGCCCCCCTGACCTGCAGCCCCCAGCCTGAATATGTGAACCAGCCAGATGTTCGGCCCCAGCCCCCT

FIGURE 945B

TCGCCCCGAGAGGGCCCTCTGCCTGCTGCCCGACCTGCTGGTGCCACTCTGGAAAGGGCCAAGACTCTCTCCCCA
GGGAAGAATGGGGTCGTCAAAGACGTTTTTGCCTTTGGGGGTGCCGTGGAGAACCCCGAGTACTTGACACCCCAG
GGAGGAGCTGCCCCTCAGCCCCACCCTCCTCCTGCCTTCAGCCCAGCCTTCGACAACCTCTATTACTGGGACCAG
GACCCACCAGAGCGGGGGGCTCCACCCAGCACCTTCAAAGGGACACCTACGGCAGAGAACCCAGAGTACCTGGGT
CTGGACGTGCCAGTG**TGA**ACCAGAAGGCCAAGTCCGCAGAAGCCCTGATGTGTCCTCAGGGAGCAGGGAAGGCCT
GACTTCTGCTGGCATCAAGAGGTGGGAGGGCCCTCCGACCACTTCCAGGGGAACCTGCCATGCCAGGAACCTGTC
CTAAGGAACCTTCCTTCCTGCTTGAGTTCCCAGATGGCTGGAAGGGGTCCAGCCTCGTTGGAAGAGGAACAGCAC
TGGGGAGTCTTTGTGGATTCTGAGGCCCTGCCCAATGAGACTCTAGGGTCCAGTGGATGCCACAGCCCAGCTTGG
CCCTTTCCTTCCAGATCCTGGGTACTGAAAGCCTTAGGGAAGCTGGCCTGAGAGGGGAAGCGGCCCTAAGGGAGT
GTCTAAGAACAAAAGCGACCCATTCAGAGACTGTCCCTGAAACCTAGTACTGCCCCCCATGAGGAAGGAACAGCA
ATGGTGTCAGTATCCAGGCTTTGTACAGAGTGCTTTTCTGTTTAGTTTTTACTTTTTTTGTTTTGTTTTTTAAA
GACGAAATAAAGACCCAGGGGAGAATGGGTGTTGTATGGGGAGGCAAGTGTGGGGGGTCCTTCTCCACACCCACT
TTGTCCATTTGCAAATATATTTTGGAAAAC

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FIGURE 946

MELAALCRWGLLLALLPPGAASTQVCTGTDMKLRLPASPETHLDMLRHLYQGCQVVQGNLELTYLPTNASLSFLQ
DIQEVQGYVLIAHNQVRQVPLQRLRIVRGTQLFEDNYALAVLDNGDPLNNTTPVTGASPGGLRELQLRSLTEILK
GGVLIQRNPQLCYQDTILWKDIFHKNNQLALTLIDTNRSRACHPCSPMCKGSRCWGESSEDCQSLTRTVCAGGCA
RCKGPLPTDCCHEQCAAGCTGPKHSDCLACLHFNHSGICELHCPALVTYNTDTFESMPNPEGRYTFGASCVTACP
YNYLSTDVGSCTLVCPLHNQEVTAEDGTQRCEKCSKPCARVCYGLGMEHLREVRAVTSANIQEFAGCKKIFGSLA
FLPESFDGDPASNTAPLQPEQLQVFETLEEITGYLYISAWPDSLPDLSVFQNLQVIRGRILHNGAYSLTLQGLGI
SWLGLRSLRELGSGLALIHHNTHLCFVHTVPWDQLFRNPHQALLHTANRPEDECVGEGLACHQLCARGHCWGPGP
TQCVNCSQFLRGQECVEECRVLQGLPREYVNARHCLPCHPECQPQNGSVTCFGPEADQCVACAHYKDPPFCVARC
PSGVKPDLSYMPIWKFPDEEGACQPCPINCTHSCVDLDDKGCPAEQRASPLTSIVSAVVGILLVVVLGVVFGILI
KRRQQKIRKYTMRRLLQETELVEPLTPSGAMPNQAQMRILKETELRKVKVLGSGAFGTVYKGIWIPDGENVKIPV
AIKVLRENTSPKANKEILDEAYVMAGVGSPYVSRLLGICLTSTVQLVTQLMPYGCLLDHVRENRGRLGSQDLLNW
CMQIAKGMSYLEDVRLVHRDLAARNVLVKSPNHVKITDFGLARLLDIDETEYHADGGKVPIKWMALESILRRRFT
HQSDVWSYGVTVWELMTFGAKPYDGIPAREIPDLLEKGERLPQPPICTIDVYMIMVKCWMIDSECRPRFRELVSE
FSRMARDPQRFVVIQNEDLGPASPLDSTFYRSLLEDDDMGDLVDAEEYLVPQQGFFCPDPAPGAGGMVHHRHRSS
STRSGGGDLTLGLEPSEEEAPRSPLAPSEGAGSDVFDGDLGMGAAKGLQSLPTHDPSPLQRYSEDPTVPLPSETD
GYVAPLTCSPQPEYVNQPDVRPQPPSPREGPLPAARPAGATLERAKTLSPGKNGVVKDVFAFGGAVENPEYLTPQ
GGAAPQPHPPPAFSPAFDNLYYWDQDPPERGAPPSTFKGTPTAENPEYLGLDVPV

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FIGURE 947

GGCACGAGGGCGCGGCGGAGGCTCCCGTGGCCTCGGACGCTCCTCCTAGCTAGCGGCCGCCGCCCGCCGCCGCCT
GCGCCTCCAGCTCCTTCGCCCCGGCGGGCCCGGCCGCCGCTTCCGGCAGCTCACCTGGGAAGCGCTCACCTGGGA
CGCGCTCACCTGGGACGCGCTACCTGCCTCCGGGCGCCTGGGCTTCAGG**ATG**AAGGACCGTCTGGAGCAGCTGAA
GGCCAAGCAGCTGACACAGGATGATGATACTGATGCGGTTGAGATTGCTATCGACAACACGGCTTTTATGGACGA
GTTCTTTTCTGAGATTGAGGAAACTCGGCTTAACATTGACAAGATCTCAGAACATGTAGAGGAGGCTAAGAAACT
CTACAGTATCATTCTCTCTGCACCGATTCCAGAGCCAAAAACCAAGGATGACCTAGAGCAGCTCACGACTGAGAT
TAAGAAAAGGGCCAACAACGTCCGGAACAAACTGAAGAGCATGGAGAAGCATATTGAAGAAGATGAGGTCAGGTC
ATCGGCAGACCTTCGGATTCGGAAATCCCAGCACTCTGTCCTTTCTCGGAAGTTTGTGGAGGTGATGACCAAATA
CAATGAAGCTCAAGTGGACTTCCGAGAACGCAGCAAAGGGCGAATCCAGCGGCAGCTCGAAATTACTGGCAAAAA
GACAACCGATGAGGAGCTGGAGGAGATGTTGGAGAGTGGCAACCCGGCCATCTTCACTTCTGGGATCATTGACTC
ACAGATTTCCAAGCAAGCCCTCAGTGAGATTGAGGGACGACACAAGGACATTGTGAGGCTGGAGAGCAGCATCAA
GGAGCTTCACGACATGTTTATGGACATCGCCATGCTGGTGGAGAATCAGGGTGAGATGTTAGATAACATAGAGTT
GAATGTCATGCACACAGTGGACCACGTGGAGAAGGCACGAGATGAAACGAAAAAAGCTGTGAAATACCAGAGTCA
GGCCCGGAAGAAATTGATAATTATCATTGTGCTAGTAGTTGTGTTGCTGGGCATTTTAGCATTGATTATTGGACT
TTCCGTTGGGCTGAAT**TAA**GAGTGGCCTAAGAGGCTGCTGCACTGAAATAAACTGATTTCACTCCAGACTGGTGT
GGCCACCCTTGTCTTCAGATGAGAATGGAGTCTGAATGGCCTTCCTGAGAGCGAGTGCGACCCGTTCCTTTGTTT
CCTTGCAACCACCCTTGGACCTGACTCAGCTAACAATCTAGCCCTGGGGGAATGTGATCTACCTGATGCGACCCT
GAGTTCTCCCCAGAGCCTCCTCCTGCCCCACCAGCTCTCAAGTACCTTTTCTCCTGGACTGTGTGGACCCACCCA
GCTTTCTTCCTCCCTGTTGTGTGTCAGATTATGCCTTGCACTTGGGAAAGCTCTTGTGAGACTCTCCCAAGGTGC
TGTATTTTTCTACCTCATGGAGTATTCTCCCAGAAACTGCAATGTATTTTTTAGGGGAGTATCTTTAACAAAGC
AGAATGATTCTTCTAAGTTTGGCAACAAGAAGGCTTGGATCTGAGTCTTCTACCTGGCAGGATGCCAATCCTGTT
TGTTGTCCGTATGTCCTGAAAACATGAGGGACTGGCAGATGTCATTTGGTCTAAAGAGCTGACTTGTTTGAAAT
TCAGCCTTAAATTAAGCTCTTAGTTGTTCAGCTTGGGGGGCAACTTTGATTTTTCTCTGTGTTGTAGTCTCTCAT
ATTTACTCAAGGAGGGACCAGGATGATACAGTCATCTGAGGTTATGCTTTGCAAAAGGCTGACGGTATGGAATAT
GTTTCCATGTCTGAGTCTTAGAAACTGGCTGCTCATTGTTAGAAAGTGATGCTTTGTGAGACTATTGTCTTGGGG
CCAAAAATAATCAGGGATTTTAAATTGGGCAAGGGACAAGGTGCTAGAATCCTAAGCTCTGGAAATATTTCATGA
CACTGGTGTATTCACTCATGTGTTCCAGATGTATTCTAATTGTGTATGAAATGTATGTACACATAAGTGTGTGTG
TCTCAGGAAGTAGGAAATAAAAATGGAAGCTATTATGACCTCAAAAAAAAAAAGCCAACTTTGAGCTAGGATAAA
AATTGGGTAAAGGACATTTGCTTACCTGCAAATGAATCACTGTGGAAATGTGATCTTCCCATATCATCAAGAAAC
TTGTTTTCTGGATGAATACTGGGAGAATAAAATGAGAACTCTGGAGTGAGCTAAATTGATCCCAATTAAGTTTTT
CTGCTTAGCAGACAGAAGGTATAATTTTTTGACACCCTTTCCCACCTGGTGCCTATGCTAGGCTTGTCCTGAGAA
CATCCCTCAGTAACTTGATATTCACATGACCTACAGGATGTCCCATCTGCAGGGCTGAGTCAGTTGGGGAACACC
AGAGGCTACACAGTAGCTCTTCCTGCTACTCGGTTAATGAGCTTGGCAGGTTCTTTGTCTCACTGAATTCTTATC
ATGGAAACAGCAGCAGCAGCCGCTAGGAAATCTTCAAGTGTAGTGTCTGTGCTAACCCAGTGGTAAATCCCTTAG
ATCCCCTGCTGGTCTCTGGCAGTCTCCTTGATTTTGGGTACCATGTATATTTTCCGCTTTGACTTTAACGCTTTC
TAGGATAGGGTAAGCACCCTTAATTCAGGCACTGTCCATTAGCTTCCTTTGCAAAGGCTACTTATGGCCGGTCAC
AATCCAGCACTCAGACAGAGCCAAGGCAATATCCTCTTGCCCATGGCTATGATGTCAGACAGTGGATGGGCTCCA
GCAACAAGAGACAAAATAACTAAAGGCCTTTGCTCTCCTCTGACATTGAGGCCTGGGGCTTACAGTTTGGAATAC
AACATGTGAAGGTTTTTGTTGTTGTTTGTATTTTTTAGATGTAAACTTGATTATTTTATTGCTAATTTAAAAATA
AAAATGACTTTGTATTGATTGTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 948

MKDRLEQLKAKQLTQDDDTDAVEIAIDNTAFMDEFFSEIEETRLNIDKISEHVEEAKKLYSIILSAPIPEPKTKD
DLEQLTTEIKKRANNVRNKLKSMEKHIEEDEVRSSADLRIRKSQHSVLSRKFVEVMTKYNEAQVDFRERSKGRIQ
RQLEITGKKTTDEELEEMLESGNPAIFTSGIIDSQISKQALSEIEGRHKDIVRLESSIKELHDMFMDIAMLVENQ
GEMLDNIELNVMHTVDHVEKARDETKKAVKYQSQARKKLIIIIVLVVVLLGILALIIGLSVGLN

FIGURE 949

CGGCACGAGGCAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTGGAGAACCAGCGGTTACC**ATG**

GAGGGGATCAGTATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAGGAA
CCCTGTTTCCGTGAAGAAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTACTCCATCATCTTCTTAACT
GGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGACGGACAAGTAC
AGGCTGCACCTGTCAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGATGCCGTGGCAAAC
TGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACAGTCAACCTCTACAGCAGTGTCCTCATC
CTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTG
GCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCCTCCTGCTGACTATTCCCGACTTCATCTTTGCCAAC
GTCAGTGAGGCAGATGACAGATATATCTGTGACCGCTTCTACCCCAATGACTTGTGGGTGGTTGTGTTCCAGTTT
CAGCACATCATGGTTGGCCTTATCCTGCCTGGTATTGTCATCCTGTCCTGCTATTGCATTATCATCTCCAAGCTG
TCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTTCTTCGCCTGT
TGGCTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAAGGGTGTGAGTTT
GAGAACACTGTGCACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATCCTC
TATGCTTTCCTTGGAGCCAAATTTAAAAACCTCTGCCCAGCACGCACTCACCTCTGTGAGCAGAGGGTCCAGCCTC
AAGATCCTCTCCAAAGGAAAGCGAGGTGGACATTCATCTGTTTCCACTGAGTCTGAGTCTTCAAGTTTTCACTCC
AGC**TAA**CACAGATGTAAGAGACTTTTTTTTATACGATAAATAACTTTTTTTTAAGTTACACATTTTTCAGATATA
AAAGACTGACCAATATTGTACAGTTTTTATTGCTTGTTGGATTTTTGCTCTTGTGTTTCTTTAGTTTTTCGTGAA
GGTTTAATTGACTTATTTATATAAATTTTTTTTGTTTCATATTGATGTGTGTCTAGGCAGGACCTGTGGCCAAGT
TCTTAGTTGCTGTATGTCTCGTGGTAGGACTGTAGAAAAGGGAACTGAACATTCCAGAGCGTGTAGTGAATCACG
TAAAGCTAGAAATGATCCCCAGCTGTTTATGCATAGATAATCTCTCCATTCCCGTGGAACGTTTTTCCTGTTCTT
AAGACGTGATTTTGCTGTAGAAGATGGCACTTATAACCAAAGCCCAAAGTGGTATAGAAATGCTGGTTTTTCAGT
TTTCAGGAGTGGGTTGATTTCAGCACCTACAGTGTACAGTCTTGTATTAAGTTGTTAATAAAAGTACATGTTAAA
CTTAAAAAAAAAAAAAAAAAA

FIGURE 950

MEGISIYTSDNYTEEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVMGYQKKLRSMTDK
YRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSSVLILAFISLDRYLAIVHATNSQRPRKL
LAEKVVYVGVWIPALLLTIPDFIFANVSEADDRYICDRFYPNDLWVVVFQFQHIMVGLILPGIVILSCYCIIISK
LSHSKGHQKRKALKTTVILILAFFACWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLNPI
LYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS

FIGURE 951A

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AAGATGGCTGCCCACGGGGGCTCCGCGGCGTCCTCGGCGCTGAAGGGGGTTAATTCAACAGTTCACCACCATTACC
GGTGCAAGTGAAAGTGTAGGAAAACATATGCTTGAAGCGTGCAACAATAATCTGGAAATGGCAGTCACTATGTTT
TTGGATGGTGGAGGAATCGCTGAAGAGCCCAGTACCAGTTCAGCAAGTGTCTCTACTGTCAGACCACACACAGAA
GAAGAAGTTCGTGCCCCAATTCCTCAAAAGCAGGAAATACTGGTGGAACCAGAACCATTATTTGGTGCTCCTAAA
AGACGACGGCCTGCACGTTCAATTTTTGATGGTTTCCGGGATTTTCAGACTGAAACTATTCGGCAAGAACAAGAA
TTAAGAAATGGAGGAGCTATCGATAAGAAATTAACTACCCTTGCAGATCTATTCCGGCCACCCATTGATTTGATG
CATAAAGGCAGCTTTGAAACAGCCAAAGAGTGTGGCCAGATGCAAAATAAGTGGCTGATGATAAACATTCAAAAT
GTTCAAGACTTTGCATGTCAGTGCCTCAACCGCGATGTGTGGAGCAACGAAGCTGTGAAGAATATTATCCGGGAA
CATTTCATTTTCTGGCAGGTTTATCATGACAGTGAGGAAGGTCAGAGATACATACAGTTTTATAAGTTAGGGGAT
TTCCCCTATGTTTCCATATTGGACCCACGGACAGGTCAGAAGCTAGTAGAATGGCACCAGTTAGATGTATCTTCT
TTCTTGGACCAAGTGACGGGATTTCTGGGTGAACATGGACAACTGGATGGACTTTCTAGCAGTCCCCCCAAAAAA
TGTGCCCGTTCAGAGAGCCTTATAGATGCAAGTGAAGACAGCCAGCTAGAAGCTGCCATCAGAGCCTCCTTACAA
GAAACACATTTTGATTCAACACAGACAAAACAGGATAGCCGCTCAGATGAAGAATCTGAATCTGAACTTTTTTCT
GGCAGTGAGGAGTTCATATCCGTTTGTGGCTCTGATGAAGAAGAAGAGGTAGAGAATCTTGCCAAGTCCAGAAAG
TCTCCCCACAAAGATTTGGGGCATAGAAAAGAGGAGAATAGAAGGCCGCTGACTGAGCCACCAGTCAGAACTGAT
CCTGGAACAGCCACAAACCACCAAGGATTGCCAGCTGTGGATTCAGAGATACTGGAGATGCCACCTGAAAAAGCA
GATGGAGTAGTGGAGGGGATAGATGTAAATGGACCAAAAGCACAGCTGATGTTGCGGTATCCAGATGGAAAAAGG
GAACAGATCACTCTTCCAGAGCAAGCTAAACTGCTAGCTTTGGTGAAGCACGTGCAGTCTAAAGGATACCCAAAT
GAACGTTTTGAACTTCTCACCAACTTTCCTCGAAGGAAATTATCTCATCTGGACTATGATATTACATTGCAAGAG
GCAGGCCTTTGTCCTCAAGAGACTGTCTTTGTACAGGAAAGAAAT**TAA**CACCATGGCTTGACCTCTCTCAGCTTA
CCCCTTTTTTCCCTTTTCCTGTGAGATACATGTCACTAAGTATGCATTTTGGCTCATAGGACCACAGAGCCAAAG
TTGGGCAAGCAAGTCACCTTCCTTCTCTTATTTCTTGATCTCTCCTATAATCAGTCTCTTTCTCCCCCTTTGTTT
CTTTCTCCTCTTCTGTTTTCTCGCTCCCCACTCCGTACCCTTCTGCCTCCCCCTCCCCCCACACTTTTCTTTCTT
ACCTAATCTGGTGACCAAACTGAAGTGTAAGGATAAGACCTCTCCTAGTACTAGCAGCAGGAATTGTGTGTTCCA
GTAAGTGGTCTCTTGCACGGCACTTTTTTGGGATCAAATGTTAACGTTACTCCCCAGACTCTTCGGGCAAAGGAA
TGGCTAGATTCAGAGTAAGAACAACCCTCCCTTTTTTGTAAGTCCCCGTGTTTAGCAGGGAGAAGAAATTCTCTA
ACATGGGTTTGGTTTTGTTGTGTTCTTCATGTGGAAATGTCGCTTAACAAAATATCCAGGCTTTTGTTTACGTGG
AAAAAGCATCCCTTGTAATGATTGCTCATCATACTTAAAAACCTTTTTCAAAGGATTTTCATGTTCCCAGCTATA
AGGACTATTTCCATGACGTGTTATTGGCAGAATGAGTGTTAAATATGGAGCATATAGCATGGGGTGACTTTCATT
GTCCTAACCTGAGACAGTTTTCCTTATTACTCTGTATTGATCCTGCTAGTCCAAGAATGGACATGAAGTGAACCT
ATCGTGGTGACTGGGATAGGAAGGTGCTTGCTATTTTGCCAGCACAGCATATTAGTTCCTTTGGAGCCCTCCAT
TGTCTGAGTCTGCAGTGATCTGTAGGAAGGCAGCTGGTCAATAATCATGTAGTACAATGGCTTGGAATTGTAACC
ACTATGGTTATTGATTGTCCTGTGTTGTTTCAGGCATACTTAGGTATGTCCCTGGGGAAAAAGAAACCATTCAG
CTGAGAGTTGCTAACCATGTTCTTTTGGTTAGAAATAATGGTTCATTTTTTGCCCCTGGTTGGAATAGTCTCTAA
AAGGCTCTGGTGACTGAATTGAACATGAGTCCGCATGCTGTTTTCTTTCAAAAGGTATCAAAACGGAAAGCCTCT
CTAAGGGGAAGACCTTTCAACTCCATTCAGAAGACAACATTTAGTAAGGAGGATGGCGGAGGTTACTAGTAATTT
TCAGATGTCTTGGGCTTTTTCTGCCAACAAAACCCAAAATCAAATTAGAGTTGGTGAAAGCTTTCTTCAGTGTTT
TTAGAAGAGGCCATCTTGAATCTGTAGAATACCATTTACACATCAACTTCACCCTATGCTCATTTCGTATTTTGA
GCTTAAATGGAGTCCTCTGAAGGGGGGGTAGTCGTGATTCTGGTGGCAAAACTAGAACTTTTAACTTGTAAAATG
AAAAATATTAAATGGACCTTTTTGTCAGTTGAGGATTTAGATTGATTCTTTTATCTGAGGAGCGTATGTTCCTCA
GATGTTGCGTAGAGACCTTTAGGTTTTCATCTACTTTAAGATTGCTCTCTTGGCAATTAGGGGATTTGGGAAAAG
AAGAAAAAAGATGCCATGTGTTGCTAGTACACAGTTATAGGATATGGTTTCTAATGGTTGAATTTTGAGGAACT
CTCCCTAAAGAATGAGTTTTATATCTCCTCAAGGAAATCATGGAAAAATCTGTTTATTCTTCAGTGAGTCCTTTT
GAATTAATGTTCTTAAATTTTTTTCTAAGTCTGTGTAAGTGCTTATGTATAAGTATATAATTGTATAAATATTTA
TAAATATATTTATATAATTACGGTTTCATTTCTACCTTGAGTCAAAGTTCTGTCTTTAGATTGGTGACTGAGTAA
TACTTACACTTTGGTGTTTTTTCTTAGGTTCTTGAGGCTTACTTAACTAGCAGCTTCTGATTTATTGAGTGAAAG
ATGGTTTTCATGTTAATTCCTCAGTTGCATCTCTGAACTTGGATAACATACTTGCCGTTTGAAAAATAGAGCTGT
ATACTGTCAAAGGTGCACTGGAGGGTAAAACATTTGTTGGTAGTAGACAAGCTCAGAAATCCAAAAATTCAGGGA
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FIGURE 951B

GGGCACAGGGTAAGAAGAGAGGTTTGCTCAGCTTTGTGCTCTGATGGCACCCATCTGTACTCCAGCAAAGTCATA
GCTGAAGCCCAAATCGCTCAAACGTGTGAAGTCAATCATTTTTCCTATAGGGCTCTGTTTCCTTTTCTTTACCTT
CTAGCTTCTCTTGATAAACAGTTGGGAGAACTGCCAACGTGTTCATCAGTGAGAGGGTGTGGTTCTTTCCGATA
TGTTCAGCACGTGCATATTCATTTATGAGAAACCAAAGTAACTTCTTCAACTCGGGTTACTGTGGGATGATTAAG
TAGATATAAAGTGATTTAAAAGACAGCATGGTACTTTCACTCAGCTTAACATGCAGCTGGGATGTCTACAATACA
AGATGTGGTGGGTTTTATTTTATTTTATTTTGAGGCAGGAGTGTAATTATCTTAGGGTTGATATAAAGGCCCATG
GGAAGAGTTACGGATTGTACATGGGAAGAATCCATAAGGAGTATTGCCTTGCTCAAGAATTTAATCCGCTGACAG
TATGCTTCTTCCAGTTTGCCTTACTTCCTCTGCAAGTTTCTTTGCTCCTTAGGGCAGAGGTTTTATTGAATAGAT
TAAATGAGGTCAGTAAGATTAGTTAAAAATAGTCATTCCTTGTGGGTGTTGGACACAGCTTGAAAGGAGTGTTTA
AAAAAAAAAAGCTAGGGAGGAAAAGAACAAGAAAGATAGACTTCGAGAGTGATAAGAGAAAAATACAGGGAGATG
GAATGGAAACTACCAGGAAGGCCGGGCGCGGTGGCTCATGCCTGTAATCCCAACACTTTGGGAGGCGGAGGTGGG
CAGATCACCTAAGGTCAGGAGATCGAGGCCAGCCTGAGCAACATGGTGAAACCCCGTCTCTACTAAAAATACAAA
AATTACCTGGGTGTGGTGGCGTGCACCTGTAATCCCAGCTACTCAGAGGCTGAGGCAGGGGAATGGCTTGAACCT
GGGAGGCAGAGGTTGCAGTGAGCCAAGATCGCACCATTACACTCCAGCCTGGGCGACAAAGCGACACTCCATCTC
AAATTT

FIGURE 952

KMAAHGGSAASSALKGLIQQFTTITGASESVGKHMLEACNNNLEMAVTMFLDGGGIAEEPSTSSASVSTVRPHTE
EEVRAPIPQKQEILVEPEPLFGAPKRRRPARSIFDGFRDFQTETIRQEQELRNGGAIDKKLTTLADLFRPPIDLM
HKGSFETAKECGQMQNKWLMINIQNVQDFACQCLNRDVWSNEAVKNIIREHFIFWQVYHDSEEGQRYIQFYKLGD
FPYVSILDPRTGQKLVEWHQLDVSSFLDQVTGFLGEHGQLDGLSSSPPKKCARSESLIDASEDSQLEAAIRASLQ
ETHFDSTQTKQDSRSDEESESELFSGSEEFISVCGSDEEEEVENLAKSRKSPHKDLGHRKEENRRPLTEPPVRTD
PGTATNHQGLPAVDSEILEMPPEKADGVVEGIDVNGPKAQLMLRYPDGKREQITLPEQAKLLALVKHVQSKGYPN
ERFELLTNFPRRKLSHLDYDITLQEAGLCPQETVFVQERN

FIGURE 953

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GGAGGGCCCGGCGGCGACAGCGGAGGCAGAGAGGAAGGCGGTTCTGAGAGCTTCAGAGAGCGATGGAAAGCAAAA
TGGGTGAATTGCCTTTAGACATCAACATCCAGGAACCTCGCTGGGACCAAAGTACTTTCCTGGGCAGAGCCCGGC
ACTTTTTCACTGTTACTGATCCTCGAAATCTGCTGCTGTCCGGGGCACAGCTGGAAGCTTCTCGGAACATCGTGC
AGAACTACAGGGCCGGCGTGGTGACCCCAGGGATCACCGAGGACCAGCTGTGGAGGGCCAAGTATGTGTATGACT
CCGCCTTCCATCCGGACACAGGGGAGAAGGTGGTCCTGATTGGCCGCATGTCAGCCCAGGTGCCCATGAACATGA
CCATCACTGGCTGCATGCTCACATTCTACAGGAAGACCCCAACCGTGGTGTTCTGGCAGTGGGTGAATCAGTCCT
TCAATGCCATTGTTAACTACTCCAACCGCAGTGGTGACACTCCCATCACTGTGAGGCAGCTGGGGACAGCCTATG
TGAGTGCCACCACTGGAGCTGTGGCCACGGCCCTGGGACTCAAATCCCTCACCAAGCACCTGCCCCCCTTGGTCG
GCAGATTTGTGCCCTTTGCAGCAGTGGCAGCTGCCAACTGCATCAACATCCCCCTGATGAGGCAGAGAGAGCTGC
AGGTGGGCATCCCGGTGGCTGATGAGGCAGGTCAGAGGCTTGGCTACTCGGTGACTGCAGCCAAGCAGGGAATCT
TCCAGGTGGTGATTTCAAGAATCTGCATGGCGATTCCTGCCATGGCCATCCCACCACTGATCATGGACACTCTGG
AGAAGAAAGACTTCCTGAAGCGCCGCCCCTGGCTGGGGGGCACCCCTGCAGGTGGGACTGGTGGGCTTCTGCCTGG
TATTTGCAACCCCCCTGTGCTGTGCCCTATTCCCCCAGAAGAGCTCCATACACATAAGCAACCTGGAACCAGAGC
TGAGAGCTCAGATCCATGAGCAAAACCCCAGCGTTGAAGTGGTCTACTACAACAAGGGGCTTTGAGGAGGGTCAG
CCTCTGTCCCCTCCCTCACTTCCTTGGGCTGCTGCTTTAGTGGAGTCATGTCACCCCTACCACTTGGCTATCTGC
CTAGCACTGGGCAGGGGCCTTGGTGGGCAGATGGCAATTGAGGGTAGCAACCTATTAGGGTGGGGGAGGGACCTC
CATAAGGCTTTTCCTCCCTTCTCTGGTTTCAAAGATCAGAGCACATAACCCCTCCTGTGCTTGAGTGTCCATGCA
TATACATACATGATACACATGTGTATGTGTACATTGGGTCCTGAAAGCTAGAAGCAGGCATGCTAGCCTAGTATG
TTCTGACATCTGGCTTCCCTTCTCAGCCTCATGTCCACCTGCCTGCCAGCCAGGCTACAGGTGTGACTTCCTTCT
CTAAACTGTTACACCAGCCAAGTTATTTTTGATGGCACCTCATCCCTTCTAGAAATAGGAGGAGCCCCAGGATCT
CAGGACAGAGACTTATAGACACTAGTAGGACAAAGCGGGCTGAATCCTTCAGGTTTCTGATACCTAGCTCCCCAA
GCTGACTGGGCTGGCAGAGGAGAACATGTTGAGACAAGGGAGGCAGGGGACTTATGCATCCCTCAGTGCCATCCC
TTGTATCCTGGAATAGCTCCATTTCCCCTCCTCCTCTCTACCAGACAAAGGAGTGCCTGTGTCCTGTACTGCCCT
CGCTGTCTCCCCCACCACCCTACTTGACAGCGTGGGCATCTTCAGGCACAGCCTTGGGAGTTCCTGGTGTGCTCT
GACATCATGACCTCAAATCTAAATCCTCCAATCCCAACTCCCTTTCCCAAACAAAAAGCCACAGAGGCAGAGCAA
GCATTCCCCTTTAAGAGCTTCCACTGCACCCCCTCCCAAGGGACACAGCGGTAGGAATGGTGCTTAAACTCCACA
GGTATCAGAGAGGGTGTAACTAGGACATCCTCAAGGGCAGCTAGGCCCCGAATGTACAATGTTAAGACAGGGAAT
TTTGTGTTCCATTGACTTTTTTTTTTTTTTTAATGGAGTTTCACTATTTTGCCCAGGCTGGAGTGCGATGGTGC
GATCTTGGCTCACTGCAACCTCTGCCTCCTGGGTTCAAGTGATTCTCTTGCCTCAGTCTCCCGAGTAGTGGAAAT
TACAGGTGTGTGCTACCACATCTTGCTAGTTTTGTATTTTTAGCAGAGATGGGGGTTTCACCATGTTGGCCAGGC
TAGTCTCGAACTCCTGACCTCAGGTGATCCACCTGCCTTGGCCTCCCAAAGCACTGGGATTACAAGCATGAGCCA
CTGTGCCCAGCCTGTTCCACTGACATTTCTTAGACATTCAGCAAAACCCCCACCTTAACCTCTTTTCTTTCTTGA
GGGTTGGTCCTGTCCCCACCTCCACCCTCCCACCCCCTGGAAGAGGAAGGGCCCGGGCATCAGTGGCTAGTCCAA
ATAAAATATGGGCTTGGGGATGGAATGGGTGGTGGTAAGTTCACAGAGTGTAGTTAGATCCCAACTCCCATGACC
TCTGGCTTCAGTGGTGGGTGGGGCAGGGCAGATGAAAGGGCTTCAGTGGGAACCTCTGAGAGCATTTTCCTGTTC
CCCCTATCAACCGCCCCAGTGATAACATCTGTGAAGCCAGCCATTACTCAATAAACTGCAAACTTGTCTAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
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FIGURE 954

MGELPLDINIQEPRWDQSTFLGRARHFFTVTDPRNLLLSGAQLEASRNIVQNYRAGVVTPGITEDQLWRAKYVYD
SAFHPDTGEKVVLIGRMSAQVPMNMTITGCMLTFYRKTPTVVFWQWVNQSFNAIVNYSNRSGDTPITVRQLGTAY
VSATTGAVATALGLKSLTKHLPPLVGRFVPFAAVAAANCINIPLMRQRELQVGIPVADEAGQRLGYSVTAAKQGI
FQVVISRICMAIPAMAIPPLIMDTLEKKDFLKRRPWLGAPLQVGLVGFCLVFATPLCCALFPQKSSIHISNLEPE
LRAQIHEQNPSVEVVYYNKGL

FIGURE 955

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TGCAGGAGTTCATGATCCTCCCAGTCGGTGCAGCAAACTTCAGGGAAGCCATGCGCATTGGAGCAGAGGTTTACC
ACAACCTGAAGAATGTCATCAAGGAGAAATATGGGAAAGATGCCACCAATGTGGGGGATGAAGGCGGGTTTGCTC
CCAACATCCTGGAGAATAAAGAAGGCCTGGAGCTGCTGAAGACTGCTATTGGGAAAGCTGGCTACACTGATAAGG
TGGTCATCGGCATGGACGTAGCGGCCTCCGAGTTCTTCAGGTCTGGGAAGTATGACCTGGACTTCAAGTCTCCCG
ATGACCCCAGCAGGTACATCTCGCCTGACCAGCTGGCTGACCTGTACAAGTCCTTCATCAAGGACTACCCAGTGG
TGTCTATCGAAGATCCCTTTGACCAGGATGACTGGGGAGCTTGGCAGAAGTTCACAGCCAGTGCAGGAATCCAGG
TAGTGGGGGATGATCTCACAGTGACCAACCCAAAGAGGATCGCCAAGGCCGTGAACGAGAAGTCCTGCAACTGCC
TCCTGCTCAAAGTCAACCAGATTGGCTCCGTGACCGAGTCTCTTCAGGCGTGCAAGCTGGCCCAGGCCAATGGTT
GGGGCGTCATGGTGTCTCATCGTTCGGGGGAGACTGAAGATACCTTCATCGCTGACCTGGTTGTGGGGCTGTGCA
CTGGGCAGATCAAGACTGGTGCCCCTTGCCGATCTGAGCGCTTGGCCAAGTACAACCAGCTCCTCAGAATTGAAG
AGGAGCTGGGCAGCAAGGCTAAGTTTGCCGGCAGGAACTTCAGAAACCCCTTGGCCAAGTAAGCTGTGGGCAGGC
AAGCCTTCGGTCACCTGTTGGCTACACAGACCCCTCCCCTCGTGTCAGCTCAGGCAGCTCGAGGCCCCCGACCAA
CACTTGCAGGGGTCCCTGCTAGTTAGCGCCCCACCGCCGTGGAGTTCGTACCGCTTCCTTAGAACTTCTACAGAA
GCCAAGCTCCCTGGAGCCCTGTTGGCAGCTCTAGCTTTTGCAGTCGTGTAATGGGCCCAAGTCATTGTTTTTCTC
GCCTCACTTTCCACCAAGTGTCTAGAGTCATGTGAGCCTCGTGTCATCTCCGGGGTGGCCACAGGCTAGATCCCC
GGTGGTTTTGTGCTCAAAATAAAAAGCCTCAGTGACCCATGAGACGGAGATCTCGCCGGCTTTACGTTCACCTCG
GTGTCTGCAGCACCCTCCGCTTCCTCTCCTAGGCGACGAGACCCAGTGGCTAGAAGTTCACCATGTCTATTCTCA
AGATCCATGCCAGGGAGATCTTTGACTCTCGCGGGAATCCCACTGTTGAGGTTGATCTCTTCACCTCAAAATAAA
AAGCCTCAGTGACCCTGCATTTGAGGGTTCAGCAGCATATACCTTCACACTAGGTTTCAGAGCCTGGGAAGAGGA
ATATTAAGACATCTTAACAACAAACCACAACATTGCCTGCATGTCTAAAAGAAAATATGGGCCTGGTGTGGTGGC
TCACACCTGTAATCCCAACACTTTGGGAGCCCGAGXCAG
```

FIGURE 956

CCAGGGCCTGACTAAACCTGGAGACTCGGGTGGCCGAGGGGCTTCATACCAGCTGAAGAGCGACAAGCCGCTGGC
AGCCGCGGATCTCACCGCCGCTCAGGGTTTTTAGAACTTCAGCCATAAAA**ATG**GGCAGAATTTTCCTTGATCATA
TCGGTGGTACCCGTCTGTTTTCTTGTGCAAACTGTGATACGATCCTGACCAACCGCTCAGAACTCATCTCCACTC
GTTTCACAGGCGCCACTGGCAGAGCATTTCTTTTTAACAAGGTAGTTAACCTGCAGTACAGCGAAGTTCAAGATC
GGGTCATGCTCACTGGCCGCCACATGGTTCGAGATGTGAGCTGCAAAAACTGCAATAGCAAACTGGGATGGATCT
ATGAGTTTGCCACTGAAGACAGCCAGCGATATAAGGAAGGCCGCGTGATCCTGGAACGTGCTCTAGTTCGAGAGA
GTGAGGGCTTTGAGGAGCATGTACCATCTGATAACTCT**TGA**AGATACAGAGAGAAATCCATCTTTTCCCAGGTCT
CCTTCACTGAAAACAAAATCTACTTACATACACTGTCACCTTAGCATCAGAGTCGGATTAATGAACTGCGGAAC
AAGAGGTTGTGAGAATCTAAGATGGAACCTTTCTTTCTTTCTTTCTTTTTTTTAAATTTTGTATTTTCCATCCA
ACAGCAGTGTGTAGAGAGAATATTATGCAGATGCCGTTAATTTTTTACCCTATGTTACATCTTGAGGCAGCAGA
GTCTGTCTGCAGCTATGTGGTGAGCTATGTAAGGAAAAAAATCTGGGCTGTTAGAGTGAAAAAGTGTGTTTATG
TCAATTGTGAAAGGAAAATGTTAGGAGTATGGTTTTTAAACTTGGGCTTCATTTTAAACTTTTTTTTTTAAACCC
AGTTATTTCACTTGATTTGCTAGCTTCAGAGAAGAGATCCGAATCTGTGCCCAGCGCTAAAGGCTCAGTGTTAGC
ATGGCTTGTGCTGGCCGGTGTGCCATATTCTTGTTGGAGATGAACCGTAGCACCAGAGCCCATTCTTCCTTGTCA
GTCTTGGCCCAAAGATGTCACCATTCCTAGTTATTTGTCACCACATAATTGGTGTTGATTGGAAACTTTTTCTGA
GATGGGACAGAACTGCTGGGTTGTCTTTTTCCATGTAACTTAAGCATAGTAATATAAATAAAGTAATAGTTGGAT
GCTTTTGGTCCTGTGTTGCTTTTAAAAACACCTTATAAAAGAGGAGAGTATTTGATAAGCAATTTTCATAGTAGT
AAAGTTTTTTTTCATCTCTTAAACTAAATTGACCATGCATATAATATTCTTTGTTTAAATGAAAGCATACTGTTG
AAACCCGCAGTGTTGCATTTAGAAAACAGTTGAACAGAATGTCAATGTGCATTCATGCAAAAAAACATTTAATCT
GCATCTGTTTTAGAAAAGGGGGAAATGAAGCAACTTGTCTAAAAATACTGCTTTACAAAGCATTTCAGCCTTTCC
CCCTCAGTTTTGCATTGATTTTTTGACAAGTCTGTAGAGCCTAATAGTTTCCATCAAAGGCCTAGATCTCTTATT
TAGCATTTTTTTCAGCTCTTCTCTCAGAAGTTCAGCTGTTGAAACGAAACTGTACTTTGTACCCTCACATACAA
AGGGATCAAATTTGACCTGGTGTTATTTTAGCCCCAAATTTATGACATTACACAATATTAAAATGTAAATGTTTC
TTTACCCAAACTACTTCTAGATATTCTAGTATTTGCTTCTGGTGGAATTAAATGACGGTAAAATTGGCTAATTAT
TTGAATGAATGAATGGATGGATGTTTTGCATGCTCAATTTCTAGGTCCTTTGTCTAGAAAGGAAATTTGCCTCAG
TTGAATTAGTGAAATATTTCTGTCGTTGATATTAAAAGTGACTTCTGAGTACAGTTAAGTTCCTCCTATTTGCCA
CTGGGCTGTTGGTTAGAAGCATAGGTAACTGATTAAGTAGGTATGATACTGCATTTGAAATAAGTGGACACAAAC
TATCCTTTCTCCACCATGGACTCAATCTGAGAACAACAGCATTCATTTCCATTCATTTCCATACTGGCTTTTGAT
TATATGCAGATTCCTAGTAGCATGCCTTACCTACAGCACTATGTGCATTTGCTGTCACAATAAAGTATATTTTGT.
CTTGCAAA

FIGURE 957

MGRIFLDHIGGTRLFSCANCDTILTNRSELISTRFTGATGRAFLFNKVVNLQYSEVQDRVMLTGRHMVRDVSCKN
CNSKLGWIYEFATEDSQRYKEGRVILERALVRESEGFEEHVPSDNS

FIGURE 958

GGCACGAGGGAGAGAACTAGTCTCGAGTTTTTTTTTTTTTTTTTTTTGACAAG**ATG**GCGGCAGGAGGCAGTGGCGT
TGGTGGGAAGCGCAGCTCGAAAAGCGATGCCGATTCTGGTTTCCTGGGGCTGCGGCCCACTTCGGTGGACCCAGC
GCTGAGGCGGCGGCGGCGAGGCCCAAGAAATAAGAAGCGGGGCTGGCGGCGGCTTGCTCAGGAGCCGCTGGGGCT
GGAGGTTGACCAGTTCCTGGAAGACGTGCGGCTACAGGAGCGCACGAGCGGTGGCTTGTTGTCAGAGGCCCCAAA
TGAAAAACTCTTCTTCGTGGACACTGGCTCCAAGGAAAAAGGGCTGACAAAGAAGAGAACCAAAGTCCAGAAGAA
GTCACTGCTTCTCAAGAAACCCCTTCGGGTTGACCTCATCCTCGAGAACACATCCAAAGTCCCTGCCCCCAAAGA
CGTCCTCGCCCACCAGGTCCCCAACGCCAAGAAGCTCAGGCGGAAGGAGCAGCTATGGGAGAAGCTGGCCAAGCA
GGGCGAGCTGCCCCGGGAGGTGCGCAGGGCCCAGGCCCGGCTCCTCAACCCTTCTGCAACAAGGGCCAAGCCCGG
GCCCCAGGACACCGTAGAGCGGCCCTTCTACGACCTCTGGGCCTCAGACAACCCCCTGGACAGGCCGTTGGTTGG
CCAGGATGAGTTTTTCCTGGAGCAGACCAAGAAGAAAGGAGTGAAGCGGCCAGCACGCCTGCACACCAAGCCGTC
CCAGGCGCCCGCCGTGGAGGTGGCGCCTGCCGGAGCTTCCTACAATCCATCCTTTGAAGACCACCAGACCCTGCT
CTCAGCGGCCCACGAGGTGGAGTTGCAGCGGCAGAAGGAGGCGGAGAAGCTGGAGCGGCAGCTGGCCCTGCCCGC
CACGGAGCAGGCCGCCACCCAGGAGTCCACATTCCAGGAGCTGTGCGAGGGGCTGCTGGAGGAGTCGGATGGTGA
GGGGGAGCCAGGCCAGGGCGAGGGGCCGGAGGCTGGGGATGCCGAGGTCTGTCCCACGCCCGCCCGCCTGGCCAC
CACAGAGAAGAAGACGGAGCAGCAGCGGCGGCGGGAGAAGGCTGTGCACAGGCTGCGGGTACAGCAGGCCGCGTT
GCGGGCCGCCCGGCTCCGGCACCAGGAGCTGTTCCGGCTGCGCGGGATCAAGGCCCAGGTGGCCCTGAGGCTGGC
GGAGCTGGCGCGGCGGCGGAGGCGGCGGCAGGCGCGGCGGGAGGCTGAGGCTGACAAGCCCCGAAGGCTGGGACG
GCTCAAGTACCAGGCACCTGACATCGACGTGCAGCTGAGCTCGGAGCTGACAGACTCGCTCAGGACCCTGAAGCC
CGAGGGCAACATCCTTCGAGACCGGTTCAAGAGCTTCCAGAGGAGGAATATGATCGAGCCTCGAGAGAGAGCCAA
GTTCAAACGCAAGTACAAGGTGAAGCTGGTGGAGAAGCGGGCGTTCCGTGAGATCCAGTTG**TAG**CTGCCATCAGA
TGCCGGAGACTCGCCCTTCAATAAAAAATCTCTTCTAGCTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 959

MAAGGSGVGGKRSSKSDADSGFLGLRPTSVDPALRRRRRGPRNKKRGWRRLAQEPLGLEVDQFLEDVRLQERTSG
GLLSEAPNEKLFFVDTGSKEKGLTKKRTKVQKKSLLLKKPLRVDLILENTSKVPAPKDVLAHQVPNAKKLRRKEQ
LWEKLAKQGELPREVRRAQARLLNPSATRAKPGPQDTVERPFYDLWASDNPLDRPLVGQDEFFLEQTKKKGVKRP
ARLHTKPSQAPAVEVAPAGASYNPSFEDHQTLLSAAHEVELQRQKEAEKLERQLALPATEQAATQESTFQELCEG
LLEESDGEGEPGQGEGPEAGDAEVCPTPARLATTEKKTEQQRRREKAVHRLRVQQAALRAARLRHQELFRLRGIK
AQVALRLAELARRRRRRQARREAEADKPRRLGRLKYQAPDIDVQLSSELTDSLRTLKPEGNILRDRFKSFQRRNM
IEPRERAKFKRKYKVKLVEKRAFREIQL

FIGURE 960

GGGCTCTCTCCTTGTCAGTCGGCGCCGCGTGCGGGCTGGTGGCTCTGTGGCAGCGGCGGCGGCAGGACTCCGGCA
CT**ATG**AGCGGCTTCAGCACCGAGGAGCGCGCCGCGCCCTTCTCCCTGGAGTACCGAGTCTTCCTCAAAAATGAGA
AAGGACAATATATATCTCCATTTCATGATATTCCAATTTATGCAGATAAGGATGTGTTTCACATGGTAGTTGAAG
TACCACGCTGGTCTAATGCAAAAATGGAGATTGCTACAAAGGACCCTTTAAACCCTATTAAACAAGATGTGAAAA
AAGGAAAACTTCGCTATGTTGCGAATTTGTTCCCGTATAAAGGATATATCTGGAACTATGGTGCCATCCCTCAGA
CTTGGGAAGACCCAGGGCACAATGATAAACATACTGGCTGTTGTGGTGACAATGACCCAATTGATGTGTGTGAAA
TTGGAAGCAAGGTATGTGCAAGAGGTGAAATAATTGGCGTGAAAGTTCTAGGCATATTGGCTATGATTGACGAAG
GGGAAACCGACTGGAAAGTCATTGCCATTAATGTGGATGATCCTGATGCAGCCAATTATAATGATATCAATGATG
TCAAACGGCTGAAACCTGGCTACTTAGAAGCTACTGTGGACTGGTTTAGAAGGTATAAGGTTCCTGATGGAAAAC
CAGAAAATGAGTTTGCGTTTAATGCAGAATTTAAAGATAAGGACTTTGCCATTGATATTATTAAAAGCACTCATG
ACCATTGGAAAGCATTAGTGACTAAGAAAACGAATGGAAAAGGAATCAGTTGCATGAATACAACTTTGTCTGAGA
GCCCCTTCAAGTGTGATCCTGATGCTGCCAGAGCCATTGTGGATGCTTTACCACCACCCTGTGAATCTGCCTGCA
CAGTACCAACAGACGTGGATAAGTGGTTCCATCACCAGAAAAAC**TAA**TGAGATTTCTCTGGAATACAAGCTGATA
TTGCTACATCGTGTTCATCTGGATGTATTAGAAGTAAAGTAGTAGCTTTTCAAAGCTTTAAATTTGTAGAACTC
ATCTAACTAAAGTAAATTCTGCTGTGACTAATCCAATATACTCAGAATGTTATCCATCTAAAGCATTTTTCATAT
CTCAACTAAGATAACTTTTAGCACATGCTTAAATATCAAAGCAGTTGTCATTTGGAAGTCACTTGTGAATAGATG
TGCAAGGGGAGCACATATTGGATGTATATGTTACCATATGTTAGGAAATAAAATTATTTTGCTGAAAAAAAAAAA
AAAAAA

FIGURE 961

MSGFSTEERAAPFSLEYRVFLKNEKGQYISPFHDIPIYADKDVFHMVVEVPRWSNAKMEIATKDPLNPIKQDVKK
GKLRYVANLFPYKGYIWNYGAIPQTWEDPGHNDKHTGCCGDNDPIDVCEIGSKVCARGEIIGVKVLGILAMIDEG
ETDWKVIAINVDDPDAANYNDINDVKRLKPGYLEATVDWFRRYKVPDGKPENEFAFNAEFKDKDFAIDIIKSTHD
HWKALVTKKTNGKGISCMNTTLSESPFKCDPDAARAIVDALPPPCESACTVPTDVDKWFHHQKN

1067/1629
FIGURE 962

AGACGGGCTGCAAGAGGGAGCCGGCCCGACGCGGACCGCTTCCCTGCAGTGCCCCGAGTCCCGGGCCCGCGCCGC
CGCCGCCCGGCTCCGCTCGCGGCCCCTCTGTCTGCAGGCGTGCCCCGGCGGCGGCGGAGAGCCGTCCTCGGCCGA
GGAGGCTGGGAAACGCGAGCGCAGGCGGCAGAGAGGCCTCAACGCCGTCCCTTTCGCCACCGCCTTTTCCTTGCC
TCGCGCCGCTGTGCATTTCTCTCCTTTTCCTTTGTTTTTTTGGCCCCTCGCGGGTGTGGGCATTGTTGGTTAGCA
AAAGTGCAGCCTCAAG**ATG**GCTGATGGCAACGAGGATCTGCGGGCTGACGACTTGCCTGGGCCAGCCTTCGAGAG
CTATGAGTCCATGGAGCTTGCCTGCCCCGCTGAGCGCAGCGGCCACGTAGCCGTCAGCGACGGGCGCCACATGTT
CGTCTGGGGCGGCTACAAGAGTAATCAAGTCAGAGGATTATATGACTTTTATCTGCCTAGAGAAGAACTATGGAT
CTACAACATGGAGACTGGAAGATGGAAAAAAATCAACACTGAAGGTGATGTTCCTCCTTCTATGTCAGGAAGCTG
TGCTGTGTGTGTAGACAGGGTGCTGTACTTGTTTGGAGGACACCATTCAAGAGGCAATACCAATAAGTTCTACAT
GCTGGATTCAAGGTCTACAGACAGAGTGTTACAGTGGGAAAGAATTGATTGCCAAGGAATTCCTCCATCATCAAA
GGACAAACTTGGTGTCTGGGTATATAAAAACAAGTTAATATTTTTTGGAGGGTATGGATATTTGCCTGAAGATAA
AGTATTGGGAACTTTTGAATTCGATGAAACATCTTTTTGGAATTCAAGTCATCCAAGAGGATGGAATGATCATGT
ACATATTTTAGATACTGAAACATTTACCTGGAGCCAGCCTATAACTACTGGTAAAGCACCTTCACCTCGTGCTGC
CCATGCCTGTGCAACTGTCGGAAATAGAGGCTTCGTGTTTGGAGGCAGGTATCGAGATGCTAGAATGAATGATCT
TCACTATCTTAATCTGGATACATGGGAGTGGAATGAATTAATTCCACAAGGCATATGCCCAGTTGGTCGATCTTG
GCACTCACTAACACCAGTTTCTTCAGATCATCTTTTTCTCTTTGGAGGATTTACCACTGATAAACAGCCACTAAG
TGATGCCTGGACTTACTGCATCAGTAAAAATGAATGGATACAATTTAATCATCCATATACCGAAAAACCAAGGTT
ATGGCACACAGCTTGTGCCAGCGATGAAGGAGAAGTAATTGTTTTTGGTGGATGTGCCAACAACTTGCTTGTCCA
TCACAGAGCTGCACACAGTAATGAAATACTAATATTTTCAGTTCAACCAAAATCTCTTGTACGGCTAAGCTTAGA
AGCAGTCATTTGCTTTAAAGAAATGTTAGCCAACTCATGGAACTGCCTTCCAAAACACTTACTTCACAGTGTTAA
TCAGAGGTTTGGTAGTAACAACACTTCTGGATCT**TAA**GGCTTCATAAATAATGCCTATGATCACCTTGCATGGAC
AGCAATCCTGTAAACATCACAGAGTGGCATCATTTGTATAATTATATGCATTGTTGTAGTTTGCACCTGTTGGTT
TTAATGTGCATGTGAATGGCCTAGAGAACCTATTTTTGTGTCTAAAGTTTACAATAAATGTATTTAACACC

1068/1629
FIGURE 963

MADGNEDLRADDLPGPAFESYESMELACPAERSGHVAVSDGRHMFVWGGYKSNQVRGLYDFYLPREELWIYNMET
GRWKKINTEGDVPPSMSGSCAVCVDRVLYLFGGHHSRGNTNKFYMLDSRSTDRVLQWERIDCQGIPPSSKDKLGV
WVYKNKLIFFGGYGYLPEDKVLGTFEFDETSFWNSSHPRGWNDHVHILDTETFTWSQPITTGKAPSPRAAHACAT
VGNRGFVFGGRYRDARMNDLHYLNLDTWEWNELIPQGICPVGRSWHSLTPVSSDHLFLFGGFTTDKQPLSDAWTY
CISKNEWIQFNHPYTEKPRLWHTACASDEGEVIVFGGCANNLLVHHRAAHSNEILIFSVQPKSLVRLSLEAVICF
KEMLANSWNCLPKHLLHSVNQRFGSNNTSGS

FIGURE 964

CGGCGACTGACCGTGGTCGTGGGCGGACGGCGGCTTGCAGCGTGGAGGAGCTGGGGTCGCTGTGGGTCGCGAAGC
AGAGCCCGGGACGTGCGCGCTTGGTGCACGATCCTGAAGGGGAGCTCCGAGGGGCCCGGGTCGCCAGGGCTGCTG
CGGCCATTCCCGGAGCCCGGCGCGGGGCCCGCGAGATACTGGTTTAGGCCGTCCCAGGGCTCCGGGCGCACCCGG
TGGCCGCTGCTGCAGCGGAGGGAGCGCGGCGGCGCGGGGGCTCGGAGACAGCGTTTCTCCCGGAAGTCTTCCTCG
GGCAGCAGGTGGGAAGTGGGAGCCGGAGCGGCAGCTGGCAGCGTTCTCTCCGCAGGTCGGCACC**ATG**CGCCCTGC
AGCCCTGCGCGGGGCCCTGCTGGGCTGCCTCTGCCTGGCGTTGCTTTGCCTGGGCGGTGCGGACAAGCGCCTGCG
TGACAACCATGAGTGGAAAAAACTAATTATGGTTCAGCACTGGCCTGAGACAGTATGCGAGAAAATTCAAAACGA
CTGTAGAGACCCTCCGGATTACTGGACAATACATGGACTATGGCCCGATAAAAGTGAAGGATGTAATAGATCGTG
GCCCTTCAATTTAGAAGAGATTAAGGATCTTTTGCCAGAAATGAGGGCATACTGGCCTGACGTAATTCACTCGTT
TCCCAATCGCAGCCGCTTCTGGAAGCATGAGTGGGAAAAGCATGGGACCTGCGCCGCCCAGGTGGATGCGCTCAA
CTCCCAGAAGAAGTACTTTGGCAGAAGCCTGGAACTCTACAGGGAGCTGGACCTCAACAGTGTGCTTCTAAAATT
GGGGATAAAACCATCCATCAATTACTACCAAGTTGCAGATTTTAAAGATGCCCTTGCCAGAGTATATGGAGTGAT
ACCCAAAATCCAGTGCCTTCCACCAAGCCAGGATGAGGAAGTACAGACAATTGGTCAGATAGAACTGTGCCTCAC
TAAGCAAGACCAGCAGCTGCAAAACTGCACCGAGCCGGGGGAGCAGCCGTCCCCAAGCAGGAAGTCTGGCTGGC
AAATGGGGCCGCCGAGAGCCGGGGTCTGAGAGTCTGTGAAGATGGCCCAGTCTTCTATCCCCCACCTAAAAAGAC
CAAGCAT**TGA**TGCCCAAGTTTTGGAAATATTCTGTTTTAAAAAGCAAGAGAAATTCACAAACTGCAG

FIGURE 965

MRPAALRGALLGCLCLALLCLGGADKRLRDNHEWKKLIMVQHWPETVCEKIQNDCRDPPDYWTIHGLWPDKSEGC
NRSWPFNLEEIKDLLPEMRAYWPDVIHSFPNRSRFWKHEWEKHGTCAAQVDALNSQKKYFGRSLELYRELDLNSV
LLKLGIKPSINYYQVADFKDALARVYGVIPKIQCLPPSQDEEVQTIGQIELCLTKQDQQLQNCTEPGEQPSPKQE
VWLANGAAESRGLRVCEDGPVFYPPPKKTKH

FIGURE 966

CGGCGACTGACCGTGGTCGTGGGCGGACGGCGGCTTGCAGCGTGGAGGAGCTGGGGTCGCTGTGGGTCGCGAAGC
AGAGCCCGGGACGTGCGCGCTTGGTGCACGATCCTGAAGGGGAGCTCCGAGGGGCCCGGGTCGCCAGGGCTGCTG
CGGCCATTCCCGGAGCCCGGCGCGGGGCCCGCGAGATACTGGTTTAGGCCGTCCCAGGGCTCCGGGCGCACCCGG
TGGCCGCTGCTGCAGCGGAGGGAGCGCGGCGGCGCGGGGGCTCGGAGACAGCGTTTCTCCCGGAAGTCTTCCTCG
GGCAGCAGGTGGGAAGTGGGAGCCGGAGCGGCAGCTGGCAGCGTTCTCTCCGCAGGTCGGCACC**ATG**CGCCCTGC
AGCCCTGCGCGGGGCCCTGCTGGGCTGCCTCTGCCTGGCGTTGCTTTGCCTGGGCGGTGCGGACAAGCGCCTGCG
TGACAACCATGAGTGGAAAAAACTAATTATGGTTCAGCACTGGCCTGAGACAGTATGCGAGAAAATTCAAAACGA
CTGTAGAGACCCTCCGGATTACTGGACAATACATGGACTATGGCCCGATAAAAGTGAAGGATGTAATAGATCGTG
GCCCTTCAATTTAGAAGAGATTAAGGATCTTTTGCCAGAAATGAGGGCATACTGGCCTGACGTAATTCACTCGTT
TCCCAATCGCAGCCGCTTCTGGAAGCATGAGTGGGAAAAGCATGGGACCTGCGCCGCCCAGGTGGATGCGCTCAA
CTCCCAGAAGAAGTACTTTGGCAGAAGCCTGGAACTCTACAGGGAGCTGGACCTCAACAGTGTGCTTCTAAAATT
GGGGATAAAACCATCCATCAATTACTACCAAGTTGCAGATTTTAAAGATGCCCTTGCCAGAGTATATGGAGTGAT
ACCCAAAATCCAGTGCCTTCCACCAAGCCAGGATGAGGAAGTACAGACAATTGGTCAGATAGAACTGTGCCTCAC
TAAGCAAGACCAGCAGCTGCAAAACTGCACCGAGCCGGGGGAGCAGCCGTCCCCCAAGCAGGAAGTCTGGCTGGC
AAATGGGGCCGCCGAGAGCCGGGGTCTGAGAGTCTGTGAAGATGGCCCAGTCTTCTATCCCCCACCTAAAAAGAC
CAAGCAT**TGA**TGCCCAAGTTTTGGAAATATTCTGTTTTAAAAAGCAAGAGAAATTCACAAACTGCAG

FIGURE 967

MRPAALRGALLGCLCLALLCLGGADKRLRDNHEWKKLIMVQHWPETVCEKIQNDCRDPPDYWTIHGLWPDKSEGC
NRSWPFNLEEIKDLLPEMRAYWPDVIHSFPNRSRFWKHEWEKHGTCAAQVDALNSQKKYFGRSLELYRELDLNSV
LLKLGIKPSINYYQVADFKDALARVYGVIPKIQCLPPSQDEEVQTIGQIELCLTKQDQQLQNCTEPGEQPSPKQE
VWLANGAAESRGLRVCEDGPVFYPPPKKTKH

FIGURE 968

GAATTCCGAGCTTTTTATTCCTAAGAGGAGAAAATCAGTAACGGGAGAAGCAGGAGGATGTCCAGAAGAAATTTC
ATCCCTTGCTCTCGCCCCTACTCTTTCTGGTGTTAGATCGAGCTACCCTCTAAAAGCAGTTTAGAGTGGTAAAAA
AAAAAAAAACACACCAAACGCTCGCAGCCACAAAAGGG**ATG**AAATTTCTTCTGGACATCCTCCTGCTTCTCCCGT
TACTGATCGTCTGCTCCCTAGAGTCCTTCGTGAAGCTTTTTATTCCTAAGAGGAGAAAATCAGTCACCGGCGAAA
TCGTGCTGATTACAGGAGCTGGGCATGGAATTGGGAGACTGACTGCCTATGAATTTGCTAAACTTAAAAGCAAGC
TGGTTCTCTGGGATATAAATAAGCATGGACTGGAGGAAACAGCTGCCAAATGCAAGGGACTGGGTGCCAAGGTTC
ATACCTTTGTGGTAGACTGCAGCAACCGAGAAGATATTTACAGCTCTGCAAAGAAGGTGAAGGCAGAAATTGGAG
ATGTTAGTATTTTAGTAAATAATGCTGGTGTAGTCTATACATCAGATTTGTTTGCTACACAAGATCCTCAGATTG
AAAAGACTTTTGAAGTTAATGTACTTGCACATTTCTGGACTACAAAGGCATTTCTTCCTGCAATGACGAAGAATA
ACCATGGCCATATTGTCACTGTGGCTTCGGCAGCTGGACATGTCTCGGTCCCCTTCTTACTGGCTTACTGTTCAA
GCAAGTTTGCTGCTGTTGGATTTCATAAAACTTTGACAGATGAACTGGCTGCCTTACAAATAACTGGAGTCAAAA
CAACATGTCTGTGTCCTAATTTCGTAAACACTGGCTTCATCAAAAATCCAAGTACAAGTTTGGGACCCACTCTGG
AACCCGAGGAAGTGGTAAACAGGCTGATGCATGGGATTCTGACTGAGCAGAAGATGATTTTTATTCCATCTTCTA
TAGCTTTTTTAACAACATTGGAAAGGATCCTTCCTGAGCGTTCCTGGCAGTTTTAAAACGAAAAATCAGTGTTA
AGTTTGATGCAGTTATTGGATATAAAATGAAAGCGCAA**TAA**GCACCTAGTTTTCTGAAAACTGATTTACCAGGTT
TAGGTTGATGTCATCTAATAGTGCCAGAATTTTAATGTTTGAACTTCTGTTTTTTCTAATTATCCCCATTTCTTC
AATATCATTTTTGAGGCTTTGGCAGTCTTCATTTACTACCACTTGTTCTTTAGCCAAAAGCTGATTACATATGAT
ATAAACAGAGAAATACCTTTAGAGGTGACTTTAAGGAAAATGAAGAAAAAGAACCAAATGACTTTATTAAAAATA
ATTTCCAAGATTATTTGTGGCTCACCTGAAGGCTTTGCAAAATTTGTACCATAACCGTTTATTTAACATATATTT
TTATTTTTGATTGCACTTAAATTTTGTATAATTTGTGTTTCTTTTCTGTTCTACATAAAATCAGAAACTTCAAG
CTCTCTAAATAAAATGAAGGACTATATCTAGTGGTATTTCACAATGAATATCATGAACTCTCAATGGGTAGGTTT
CATCCTACCCATTGCCACTCTGTTTCCTGAGAGATACCTCACATTCCAATGCCAAACATTTCTGCACAGGGAAGC
TAGAGGTGGATACACGTGTTGCAAGTATAAAAGCATCACTGGGGGATTTAAGGAGAATTGAGAGAATGTACCCAC
AAATGGCAGCAATAATAAATGGATCACACTTAACG

FIGURE 969

MKFLLDILLLLPLLIVCSLESFVKLFIPKRRKSVTGEIVLITGAGHGIGRLTAYEFAKLKSKLVLWDINKHGLEE
TAAKCKGLGAKVHTFVVDCSNREDIYSSAKKVKAEIGDVSILVNNAGVVYTSDLFATQDPQIEKTFEVNVLAHFW
TTKAFLPAMTKNNHGHIVTVASAAGHVSVPFLLAYCSSKFAAVGFHKTLTDELAALQITGVKTTCLCPNFVNTGF
IKNPSTSLGPTLEPEEVVNRLMHGILTEQKMIFIPSSIAFLTTLERILPERFLAVLKRKISVKFDAVIGYKMKAQ

FIGURE 970

GGCACGAGGGTGAGCGCTCGCAAGAGGACGGCAGAGGCCCGGCAGCTCGGAGCTCCGGGACCTTGTGGCGCATCA
GGACGCGGCTGTCCCTCTGCCGGGACCCAGAGCCGCCGCCGCCGCTCTGCCTCCTGCGTGTTAGCCTCCTCTGCG
CGCTCCGGGCAGGCGGCCGTGGGAGCCGCTGGGGCGAGGACGGCGCGAGGCTGCTGCTGCTGCCCCCGGCCCGCG
CGGCTGGAAACGGAGAGGCCGAGCCAAGCGGCGGCCCCTCTTATGCTGGGAGG**ATG**CTGGAGAGTAGCGGCTGCA
AAGCGCTGAAGGAGGGCGTGCTGGAGAAGCGCAGCGACGGGTTGTTGCAGCTCTGGAAGAAAAAGTGTTGCATCC
TCACCGAGGAAGGGCTGCTGCTTATCCCGCCCAAGCAGCTGCAACACCAGCAGCAGCAGCAACAGCAGCAGCAGC
AGCAGCAACAACAGCCCGGGCAGGGGCCGGCCGAGCCGTCCCAACCCAGTGGCCCCGCTGTCGCCAGCCTCGAGC
CGCCGGTCAAGCTCAAGGAACTGCACTTCTCCAACATGAAGACCGTGGACTGTGTGGAGCGCAAGGGCAAGTACA
TGTACTTCACTGTGGTGATGGCAGAGGGCAAGGAGATCGACTTTCGGTGCCCGCAAGACCAGGGCTGGAACGCCG
AGATCACGCTGCAGATGGTGCAGTACAAGAATCGTCAGGCCATCCTGGCGGTCAAATCCACGCGGCAGAAGCAGC
AGCACCTGGTCCAGCAGCAGCCCCCCTCGCAGCCGCAGCCGCAGCCGCAGCTCCAGCCCCAACCCCAGCCTCAGC
CTCAGCCGCAACCCCAGCCCCAATCACAACCCCAGCCTCAGCCCCAACCCAAGCCTCAGCCCCAGCAGCTCCACC
CGTATCCGCATCCACATCCACATCCACACTCTCATCCTCACTCGCACCCACACCCTCACCCGCACCCGCATCCGC
ACCAAATACCGCACCCACACCCACAGCCGCACTCGCAGCCGCACGGGCACCGGCTTCTCCGCAGCACCTCCAACT
CTGCC**TGA**AAGGGGCAGCTCCCGGGCAAGACAAGGTTTTGAGGACTTGAGGAAGTGGGACGAGCACATTTCTATT
GTCTTCACTTGGATCAAAAGCAAAACAGTCTCTCCGCCCCGCACCAGATCAAGTAGTTTGGACATCACCCTACTG
AAAACTTGCGATTCTTCTTAGTTTTCTGCATACTTTTCATCACGATGCAGGAAACGATTTCGAGTCAAGAAGACT
TTTATTTATGAACCTTTGAAAGGATCGTCTTGTATGGTGAATTTTCTAGGAGCGATGATGTACTGTAATTTTATT
TTAATGTATTTTGATTTATGATTATTTATTAGTTTTTTTTAAATGCTTGTTCTAAGACATTTCTGAATGTAGACC
ATTTTCCAAAAAGGAAACTTTATTTTCAAAAACCTAATCCGTAGTAATTCCTAATCTTGGAGAATAAAAAAGGGC
GGTGGAGGGGAAAACATTAAGAATTTATTCATTATTTCTCGAGTACTTTCAGAAAGTCTGACACTTTCATTGTTG
TGCCAGCTGGTTGAAATTAAAACTCTGATATTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAA

FIGURE 971

MLESSGCKALKEGVLEKRSDGLLQLWKKKCCILTEEGLLLIPPKQLQHQQQQQQQQQQQQQQQPGQGPAEPSQPSG
PAVASLEPPVKLKELHFSNMKTVDCVERKGKYMYFTVVMAEGKEIDFRCPQDQGWNAEITLQMVQYKNRQAILAV
KSTRQKQQHLVQQQPPSQPQPQPQLQPQPQPQPQPQPQPQSQPQPQPQPKPQPQQLHPYPHPHPHSHPHSHPH
PHPHPHPHQIPHPHPQPHSQPHGHRLLRSTSNSA

FIGURE 972

CCCGTATCCGCATCCACATCCACATCCACACTCTCATCCTCACTCGCACCCACACCCTCACCCGCACCCGCATCC
GCACCAAATACCGCACCCACACCCACAGCCGCACTCGCAGCCGCACGGGCACCGGCTTCTCCGCAGCACCTCCAA
CTCTGCCTGAAAGGGGCAGCTCCCGGGCAAGACAAGGTTTTGAGGACTTGAGGAAGTGGGACGAGCACATTTCTA
TTGTCTTCACTTGGATCAAAAGCAAAACAGTCTCTCCGCCCCGCACCAGATCAAGTAGTTTGGACATCACCCTAC
TGAACAACTTGGCGATTCTTCTTAGTTTTCTGCATACTTTTCATCACCGATGCAGGAAACGATTTCGAGTCAAGA
AGACTTTTATTTATGAACCTTTGAAAGGATCGTCTTGTATGGTGAATTTTCTAGGAGCGATGATGTACTGTAATT
TTATTTTAATGTATTTTGATTATGATTATTTATTAGTTTTTTTTAAATGCTTGTTCTAAGACATTTCTGAATGT
AGACCATTTTCCAAAAAGGAAACTTTATTTTCAAAAACCTAATCCGTAGTAATTCCTAATCTTGGAGAATAAAAA
AGGGCGGTGGAGGGGAAAACATTAAGAATTTATTCATTATTTCTCGAGTACTTTCAGAAAGTCTGACACTTTCAT
TGTTGTGCCAGCTGGTTGAAATTAAAACTCTGATATTACTTTTTTTGAGGATTTTTATTTTTGTTTTTGCTTAAA
CACTATAGTTTGTCTAGAAGTTTAAAAAGCTAAAAGTTAAAAATGGTGTAATTATGAAAATCTAACACTCAAGAT
AGTTTCTAAAAGGAAATCAGTAGTTAAGGATACCTGATTTCAAAATATTTAAAGCATAACCTAACTGATGGTAGG
ATGATTGTATCTTGAATATGTGGTAGGGCCACATCTATTGTAGGAAAACCTTGCTTTTATCATCTGTGTGTAAAG
GGCTTAATAAGGAGAAGAGGCCTTTTGACTGATTGTGAGTATAAATGCATTTGCTGTTTCATTTCAAAAATGTT
GTGGAGGAAAAGAGTACATTTAACTTGTATAAGAGAATATTTGTACTCCTGTCCAGGCTGCAGGACCTTTCTTCG
AGAGCTTTGCACACTTGACTTGAACCACATTTTCTGATCCCTTTACTTTGTTTTAGAAGCACACTGAAAAATCTC
GTTGTTTAAAGTACAATTTGTAAATATTTCAAAGGTCTAGGAGTCATAACTTTTGTTTTCATACTGAAAATGATG
TTGATCAGAGAAACCAACTGTTTTGCTTTTCATTGCTCTGTGAGAAATTGAGGATTCTGTTTTGCTGTTAGGTAA
GCTAACTCAGAAATTGAAAGGAAAGACTGGATAAACACCGGATTTTCAGTAAGAAAACAACCCCAGTCTTGTCTT
AGAAGCCACTTGTTGAGGAGTCTGTTGGGGGAAAAAAGAGGATATGCTTTTAAAGGTAGAACAAACCTTCTTCTG
TGTTAAATCAAAAGGATGTTCAAAATCCACCAGGACAGATGCTACTTGGGTTTAAATGGAGCCATAGATGATACA
AAGTCCTCTTGGGGCTGAAAATCACTTCCTATTTGCATGGCTTTACTAACTGGTTTCTGTTTTCCATTATCTTTT
TCACAGAAAGTCTTGGTCAGTATTTTTCCAGCATTTAAATTGAAACGGTCAGTATTAGACCACTGCTAGGTTATG
TAGTCAAGAAATAAAAATAGAATTACATGCTACAGATGTCTTTATTCTCCTTCCATCTAGAAAGGAGTTCCAAGG
TCAAATTACTTTTTAGTGCAATAGTTAAATGACATTTTGAGATCATAACTCATATCCAAAAAGTTGCAGGGAAAA
TTAAAATAGCTTTCCCCTATTAAGCTAATGGCAAACAAAACTTAAGTGGACCCCCACTTCCAGTGGTTGTTTAGG
TTGCAGTTGTGAAAATATGCTGCCAACATTTAAAAAACTTGTTTCATATGTATATATGTATACACATATATGAATA
TGTATGTATATATACATATATGAGAACATGTGTGTACACATATATGAATATGTATATATGTGTATGTATGTATAT
ATGTATATGAAATGAGAGCCACATCTAAAGATTTCTTAAATCAAGTTTGGTTCAGCTTCCTTAGAACTGTGGCTG
TACTTTTTGAGGAGTACCTCATAGTACTATATTTTTAATGCATGCAAATCATAATAGCTCCAAATGAACCACAGT
TTTTTCCCAATGGAGGATTTTTTTTTAATTCTTGTACTAAAAAAAAAAAATCCATACCAAATATTTTTACAAATT
AAGATTGATGTAGGTTTTAAAAAAAGGCATTTGTATGTTGTTAGCTTACATATGGGGCTAGGTAATTTCATTGCTT
AAAAAGATGCGCCTAGGCTCCCTCTTGGTGGCTGGATTTCTTTTTCTTCGCCCGTGGTGGCCATGGTTTTTAATA
GGGCCACCGGAATCATGGTTTCTTTTTTTTTTTTTTTTTGGAGATGGAGTCTCGCCCTGTGACCCAGGCTGGAG
TGCAGTGGCACGATCTCGGCTCACTGCAACCTCTGCCTCTTGGGTTCACGCCATTCTCCTGTGTCAGCCTCCTGA
GTAGCTGGGACTACAGGTGAATGCCACCACGCCCGGCTGATTTTGTATTTTTAGTAGAGATGGGGTTTCACCAT
AGTGGTCAGGCTGTTCTCGAACTCCTGACCTCAGGTGATCCACCTGCCTTGGCCTCCCAAAGTGCTAGGATTACA
GGTGTGAGCCACCACACCCGGCCCCAGAGTAATGGTTTCTTGACTTTCTGTAGCCCTTGTTCCTTAGTCTGCTGT
GATATTTATGTTGACCTTTATCATTTTCTATTCTGAACCCCTCTTAGCATTTAATGTGAAATCTAAGAAATTAGA
AGTAGAATGGCTTTTATTGTTTTGACACCTTTGAAATTATTATTAATAATTTTTCCAGAGCAAAAAAGCAAACAC
GCTCAATAAGACTAAACAAAACAAAATATAAATGTACATCATTTAATGTCCCAGTGGCTCTATTCTACCTGTAAG
AAAATGATACAAAACCACCTAAGATATTTTGAAGCCTGACAAATCAGCTTCATGGAAAAAGGTAAAAAATGCATT
TTTCAACCGAAAGGGCAGATCCAATAGAAGACCCGCTCCTTAAATAAACATAAATGTAAAAGTTGGAAAAAAAA
AA

FIGURE 973

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GTTTGCGGGTGGTTGTTGCTCTCGGGGCCGTGTGGAGTAGGTCTGGACCTGGACTCACGGCTGCTTGGAGCGTCC
GCCATGAGGAGAAGTGAGGTGCTGGCGGAGGAGTCCATAGTATGTCTGCAGAAAGCCCTAAATCACCTTCGGGAA
ATATGGGAGCTAATTGGGATTCCAGAGGACCAGCGGTTACAAAGAACTGAGGTGGTAAAGAAGCATATCAAGGAA
CTCCTGGATATGATGATTGCTGAAGAGGAAAGCCTGAAGGAAAGACTCATCAAAAGCATATCCGTCTGTCAGAAA
GAGCTGAACACTCTGTGCAGCGAGTTACATGTTGAGCCATTTCAGGAAGAAGGAGAGACGACCATCTTGCAACTA
GAAAAAGATTTGCGCACCCAAGTGGAATTGATGCGAAAACAGAAAAAGGAGAGAAAACAGGAACTGAAGCTACTT
CAAGAGCAAGATCAAGAACTGTGCGAAATTCTTTGTATGCCCCACTATGATATTGACAGTGCCTCAGTGCCCAGC
TTAGAAGAGCTGAACCAGTTCAGGCAACATGTGACAACTTTGAGGGAAACAAAGGCTTCTAGGCGTGAGGAGTTT
GTCAGTATAAAGAGACAGATCATACTGTGTATGGAAGAATTAGACCACACCCCAGCACAAGCTTTGAAAGAGAT
GTGGTGTGTGAAGACGAAGATGCCTTTTGTTTGTCTTTGGAGAATATTGCAACACTACAAAAGTTGCTACGGCAG
CTGGAAATGCAGAAATCACAAAATGAAGCAGTGTGTGAGGGGCTGCGTACTCAAATCCGAGAGCTCTGGGACAGG
TTGCAAATACCTGAAGAAGAAAGAGAAGCTGTGGCCACCATTATGTCTGGGTCAAAGGCCAAGGTCCGGAAAGCG
CTGCAATTAGAAGTGGATCGGTTGGAAGAACTGAAAATGCAAAACATGAAGAAAGTGATTGAGGCAATTCGAGTG
GAGCTGGTTCAGTACTGGGACCAGTGCTTTTATAGCCAGGAGCAGAGACAAGCTTTTGCCCCTTTCTGTGCTGAG
GACTACACAGAAAGTCTGCTCCAGCTCCACGATGCTGAGATTGTGCGGTTAAAAAACTACTATGAAGTTCACAAG
GAACTCTTTGAAGGTGTCCAGAAGTGGGAAGAAACCTGGAGGCTTTTCTTAGAGTTTGAGAGAAAAGCTTCAGAT
CCAAATCGATTTACAAACCGAGGAGGAAATCTTCTAAAAGAAGAAAAACAACGAGCCAAGCTCCAGAAAATGCTG
CCCAAGCTGGAAGAAGAGTTGAAGGCACGAATTGAATTGTGGGAACAGGAACATTCAAAGGCATTTATGGTGAAT
GGGCAGAAATTCATGGAGTATGTGGCAGAACAATGGGAGATGCATCGATTGGAGAAAGAGAGAGCCAAGCAGGAA
AGACAACTGAAGAACAAAAAACAGACAGAGACAGAGATGCTGTATGGCAGCGCTCCTCGAACACCTAGCAAGCGG
CGAGGACTGGCTCCCAATACACCGGGCAAAGCACGTAAGCTGAACACTACCACCATGTCCAATGCTACGGCCAAT
AGTAGCATTCGGCCTATCTTTGGAGGGACAGTCTACCACTCCCCCGTGTCTCGACTTCCTCCTTCTGGCAGCAAG
CCAGTCGCTGCTTCCACCTGTTCAGGGAAGAAAACACCCCGTACTGGCAGGCATGGAGCCAACAAGGAGAACCTG
GAGCTCAACGGCAGCATCCTGAGTGGTGGGTACCCTGGCTCGGCCCCCCTCCAGCGCAACTTCAGCATTAATTCT
GTTGCCAGCACCTATTCTGAGTTTGCGAAGGATCCGTCCCTCTCTGACAGTTCCACTGTTGGGCTTCAGCGAGAA
CTTTCAAAGGCTTCCAAATCTGATGCTACTTCTGGAATCCTCAATTCAACCAACATCCAGTCCTGAGAAGCCCTG
ATCAGTCAACCAGCTGTGGCTTCCTGTGCCTAGACTGGACCTAATTATATGGGGGTGACTTTAGTTTTTCTTCAG
CTTAGGAGTGCTTGAAACCTTGGCCAGGTTCCATGACCATGGGCCTAACTTAAAGATGTGAATGAGTGTTACAGT
TGAAAGCCCATCATAGGTTTAGTGGTCCTAGGAGACTTGGTTTTGACTTATATACATGAAAAGTTTATGGCAAGA
AGTGCAAATTTTAGCATATGGGGCCTGACTTCTCTACCACATAATTCTACTTGCTGAAGCATGATCAAAGCTTGT
TTTATTTCACCACTGTAGGAAAATGATTGACTATGCCCATCCCTGGGGGTAATTTTGGCATGTATACCTGTAACT
AGTAATTAACATCTTTTTTGTTTAGGCATGTTCAATTAATGCTGTAGCTATCATAGCTTTGCTCTTACCTGAAGC
CTTGTCCCCACCACACAGGACAGCCTTCCTCCTGAAGAGAATGTCTTTGTGTGTCCGAAGTTGAGATGGCCTGCC
CTACTGGCAAAGAGGTGACAGGAAGGCTGGGAGCAGCTTTGTTAAATTGTGTTCAGTTCTGTTACACAGTGCATT
GCCCTTTGTTGGGGGTATGCATGTATGAACACACATGCTTGTCGGAACGCTTTCTCGGCGTTTGTCCCTTGGCTC
TCATCTCCCCCATTCCTGTGCCTACTTTGCCTGAGTTCTTCTACCCCCGCAGTTGCCAGCCAGATTGGGAGTCTG
TTTGTTCCAATGGGTTGAGCTGTCTTTGTCGTGGAGATCTGGAACTTTGCACATGTCACTACTGGGGAGGTGTTC
CTGCTCTAGCTTCCACGATGAGGCGCCCTCTTTACCTATCCTCTCAATCACTACTCTTCTTGAAGCACTATTATT
TATTCTTCCGCTGTCTGCCTGCAGCAGTACTACTGTCAACATAGTGTAAATGGTTCTCAAAAGCTTACCAGTGTG
GACTTGGTGTTAGCCACGCTGTTTACCTCATACAGTACGTGTCCTGTTTTTAAAATATACAATTATTCTTAAAAA
TAAATTAAAATCGTATACTTACATTTCAAAAAAAAAAAAAAAAA
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FIGURE 974

MRRSEVLAEESIVCLQKALNHLREIWELIGIPEDQRLQRTEVVKKHIKELLDMMIAEEESLKERLIKSISVCQKE
LNTLCSELHVEPFQEEGETTILQLEKDLRTQVELMRKQKKERKQELKLLQEQDQELCEILCMPHYDIDSASVPSL
EELNQFRQHVTTLRETKASRREEFVSIKRQIILCMEELDHTPDTSFERDVVCEDEDAFCLSLENIATLQKLLRQL
EMQKSQNEAVCEGLRTQIRELWDRLQIPEEEREAVATIMSGSKAKVRKALQLEVDRLEELKMQNMKKVIEAIRVE
LVQYWDQCFYSQEQRQAFAPFCAEDYTESLLQLHDAEIVRLKNYYEVHKELFEGVQKWEETWRLFLEFERKASDP
NRFTNRGGNLLKEEKQRAKLQKMLPKLEEELKARIELWEQEHSKAFMVNGQKFMEYVAEQWEMHRLEKERAKQER
QLKNKKQTETEMLYGSAPRTPSKRRGLAPNTPGKARKLNTTTMSNATANSSIRPIFGGTVYHSPVSRLPPSGSKP
VAASTCSGKKTPRTGRHGANKENLELNGSILSGGYPGSAPLQRNFSINSVASTYSEFAKDPSLSDSSTVGLQREL
SKASKSDATSGILNSTNIQS

FIGURE 975

GCGGATCATCCGCTTCCGGAGTCGAGGTTTTCGGGCTTGTACCGCTTGGCGGTGCGGCCTGGTGTCGGCTTGCAG
GTTCTTTCTGTGTTTGTTCTCTGCCCTGCCAAGGCCGTAGAGCTGGTGCGTGCGGGTAGCGGGGCTCTCCGAGGA
GCGCGGCACGCCGCGCACC**ATG**GTCCACCTCACTACTCTCCTCTGCAAGGCCTACCGTGGGGGCCACTTAACCAT
CCGCCTTGCCCTGGGTGGCTGCACCAATCGGCCGTTCTACCGCATTGTGGCTGCTCACAACAAGTGTCCCAGGGA
TGGCCGTTTCGTAGAGCAGCTGGGCTCCTATGATCCATTGCCCAACAGTCATGGAGAAAAACTCGTTGCCCTCAA
CCTAGACAGGATCCGTCATTGGATTGGCTGCGGGGCCCACCTCTCTAAGCCTATGGAAAAGCTTCTGGGTCTTGC
TGGCTTTTTCCCTCTGCATCCTATGATGATCACAAATGCTGAGAGACTGCGAAGGAAACGGGCACGTGAAGTCCT
GTTAGCTTCTCAGAAAACAGATGCAGAAGCTACAGATACAGAGGCTACAGAAACA**TAA**ATGAGCTGACTTTAGTG
AGCATAGCAGTGGGAACAAGGTCAAGGTCCTTTTGAAACACTGCAGCGATCTTAATTTTGTTAGATTTGGAGTTC
AATAAATGGAGTATCCTGAAAAAAAAAAA

FIGURE 976

MVHLTTLLCKAYRGGHLTIRLALGGCTNRPFYRIVAAHNKCPRDGRFVEQLGSYDPLPNSHGEKLVALNLDRIRH
WIGCGAHLSKPMEKLLGLAGFFPLHPMMITNAERLRRKRAREVLLASQKTDAEATDTEATET

FIGURE 977

GGAGCTCTGGAGGCGGGGCTTCGAGCGTGGCTCGTGGGTTTTCCGTGAAGTCGCGGTGCAGCGGTGGGCGGC**ATG**

TCTGTGGCCGGTGGGGAGATTCGTGGGGACACGGGGGGAGAGGACACTGCTGCTCCCGGCCGGTTCAGCTTCAGC
CCGGAGCCCACGCTCGAGGACATCCGCCGCCTCCATGCTGAGTTTGCTGCGGAACGAGACTGGGAACAGTTCCAT
CAGCCTCGGAATCTCCTCCTGGCCTTGGTTGGGGAAGTGGGGGAGCTGGCAGAACTCTTTCAGTGGAAAACCGAT
GGGGAACCTGGCCCCCAAGGCTGGTCCCCCAGGGAACGGGCAGCCCTTCAAGAGGAGCTTAGTGACGTCCTCATC
TACCTGGTGGCATTAGCAGCCCGCTGCCGTGTGGATCTGCCGCTAGCAGTGCTCTCCAAAATGGACATCAACCGG
CGACGCTACCCAGCCCATCTGGCCCGCAGCTCTTCCCGCAAGTATACAGAATTGCCCCATGGGGCCATCTCTGAA
GACCAGGCTGTGGGGCCTGCGGACATTCCCTGTGACTCCACAGGCCAGACCTCAACC**TAG**AAAGATGGCCACAGG
ACTTGCAACTCAGGGTGGTGTCTGAAGAGCAGAGAGTGGCCTGGCCCTGGAGCCTTTTTCTAGTCTTTTCAGAAT
AGATCATGGGCCTGAGGCCTCCACTTCTTGAGGTCTGAGGCCCAGCAGCCTCTAGAAGGTAGCCTCCTGGTGTTT
GTTCTCCCAGTAAAATGGTTTTGGGCGATAACTTCTAGATTATTCCTGGATGGCCAGGGAGGCTCTCTGTCTCAG
CAGGTGATGACGGGGGTACCAGGGGTGCCTCTGAGACCCATTCTCGTGTTTCCCTGTTGTACCTTTTGCCTGCAG
GGCAGAGAGATCTGGTTTCTAGCAAATTCCCAGTAGGATGTCATGTAAGTTCCTTCCCCCTCTTAGAGATTGAAG
GCTGTAAGAGTCCAGATGGTGGAGCCAGGCTGTCTGGGTTCAAATGCCATCTTTGACACTTGCAAGCTAAATGAC
ATTACTCAAATTAATCGTTCTGCACTTCAGCTTCCTTGTCTATCAAATAAAAGAATAGTACCTGCCCAAAAAAA
AAAAAAAAAAAAAAAAAA

FIGURE 978

MSVAGGEIRGDTGGEDTAAPGRFSFSPEPTLEDIRRLHAEFAAERDWEQFHQPRNLLLALVGEVGELAELFQWKT
DGEPGPQGWSPRERAALQEELSDVLIYLVALAARCRVDLPLAVLSKMDINRRRYPAHLARSSSRKYTELPHGAIS
EDQAVGPADIPCDSTGQTST

FIGURE 979

GAAGGTCAGCGTGTGAAGTAGGCGCTGGCAACGCGGGGTTACCCTGXTXTATTGAGGAGTAACGGCCCAGCGGAC
CACCCAGGCTTGAGGCAGCGGCGGGAACCACTCGGTTTGCTGCGATACC**ATG**GAAGGAGGCGGGGGAAGCGGCAA
CAAAACCACAGGGGGATTGGCCGGCTTTTTCGGAGCCGGCGGAGCAGGTTACTCGCACGCGGATTTGGCTGGCGT
CCCGCTAACTGGTATGAACCCTCTGTCTCCTTATTTAAATGTGGATCCACGATACCTCGTGCAGGATACAGATGA
GTTTATTTTACCTACCGGAGCTAATAAAACCCGGGGCAGATTTGAGCTGGCCTTCTTTACGATTGGAGGATGTTG
CATGACAGGGGCTGCGTTTGGTGCAATGAATGGTCTTCGGCTAGGATTGAAGGAAACCCAGAACATGGCCTGGTC
CAAACCAAGAAATGTACAGATTTTGAATATGGTGACTAGGCAAGGGGCACTTTGGGCTAATACTCTAGGTTCTCT
GGCTTTGCTCTATAGTGCATTTGGTGTCATCATTGAGAAAACACGAGGTGCAGAAGATGACCTTAACACAGTAGC
AGCTGGAACCATGACAGGCATGTTGTATAAATGTACAGGTGGTCTTCGAGGGATAGCACGAGGTGGTCTGACAGG
ACTAACACTTACCAGCCTCTATGCACTATATAATAACTGGGAGCACATGAAAGGCTCCTTGCTCCAACAGTCACT
C**TGA**AGATTTTGCCAACTCATGAATGGAGGACACTTCAGTAGTTCATCTAGGATCCTTTTATTAAGGACAGTTTG
GGAGTTATTTCTCTCT

FIGURE 980

MEGGGGSGNKTTGGLAGFFGAGGAGYSHADLAGVPLTGMNPLSPYLNVDPRYLVQDTDEFILPTGANKTRGRFEL
AFFTIGGCCMTGAAFGAMNGLRLGLKETQNMAWSKPRNVQILNMVTRQGALWANTLGSLALLYSAFGVIIEKTRG
AEDDLNTVAAGTMTGMLYKCTGGLRGIARGGLTGLTLTSLYALYNNWEHMKGSLLQQSL

FIGURE 981

GGCGAAGGAGATCAGCAGGACGCTGCGCACAAC**ATG**GGCAACCACCTGCCGCTCCTGCCTGCAGAGAGTGAGGAA
GAAGATGAAATGGAAGTTGAAGACCAGGATAGTAAAGAAGCCAAAAAACCAAACATCATAAATTTTGACACCAGT
CTGCCGACATCACATACATACCTAGGTGCTGATATGGAAGAATTTCATGGCAGGACTTTGCACGATGACGACAGC
TGTCAGGTGATTCCAGTTCTTCCACAAGTGATGATGATCCTGATTCCCGGACAGACATTACCTCTTCAGCTTTTT
CACCCTCAAGAAGTCAGTATGGTGCGGAATTTAATTCAGAAAGATAGAACCTTTGCTGTTCTTGCATACAGCAAT
GTACAGGAAAGGGAAGCACAGTTTGGAACAACAGCAGAGATATATGCCTATCGAGAAGAACAGGATTTTGGAATT
GAGATAGTGAAAGTGAAAGCAATTGGAAGACAAAGGTTCAAAGTCCTTGAGCTAAGAACACAGTCAGATGGAATC
CAGCAAGCTAAAGTGCAAATTCTTCCCGAATGTGTGTTGCCTTCAACCATGTCTGCAGTTCAATTAGAATCCCTC
AATAAGTGCCAGATATTTCCTTCAAAACCTGTCTCAAGAGAAGACCAATGTTCATATAAATGGTGGCAGAAATAC
CAGAAGAGAAAGTTTCATTGTGCAAATCTAACTTCATGGCCTCGCTGGCTGTATTCCTTATATGATGCTGAGACC
TTAATGGACAGAATCAAGAAACAGCTACGTGAATGGGATGAAAATCTAAAAGATGATTCTCTTCCTTCAAATCCA
ATAGATTTTTCTTACAGAGTAGCTGCTTGTCTTCCTATTGATGATGTATTGAGAATTCAGCTCCTTAAAATTGGC
AGTGCTATCCAGCGACTTCGCTGTGAATTAGACATTATGAATAAATGTACTTCCCTTTGCTGTAAACAATGTCAA
GAAACAGAAATAACAACCAAAAATGAAATATTCAGTTTATCCTTATGTGGGCCGATGGAGCTTATG**TGA**ATCCTC
ATGGATATGTGCATGAGACACTTACTGTGTATAAGGCTTGCAACTTGAATCTGATAGGCCGGCCTTCTACAGAAC
ACAGCTGGTTTCCTGGGTATGCCTGGACTGTTGCCCAGTGTAAGATCTGTGCAAGCCCATATTGGATGGGAAGTT
TACGGCCACCAAAAAAGACATGTCACCTCAAAAATTTTGGGGCTTAACGCGATCTGCTCTGTTGCCCACGATCCC
AGACACTGAAGATGAAATAAGTCCAGACAAAGTAATACTTTGCTTGTAAACAGATGTGATAGAGATAAAGTTATC
TAACAAATTGGTTATATTCTAAGATCTGCTTTGGAAATTATTGCCTCTGATACATACCTAAGTAAACATAACATT
AATACCTAAGTAAACATAACATTACTTGGAGGGTTGCAGTTTCTAAGTGAAACTGTATTTGAAACTTTTAAGTAT
ACTTTAGGAAACAAGCATGAACGGCAGTCTAGAATACCAGAAACATCTACTTGGGTAGCTTGGTGCCATTATCCT
GTGGAATCTGATATGTCTGGTAGCATGTCATTGATGGGACATGAAGACATCTTTGGAAATGATGAGATTATTTCC
TGTGTTAAAAAAAAAAAA

FIGURE 982

MGNHLPLLPAESEEEDEMEVEDQDSKEAKKPNIINFDTSLPTSHTYLGADMEEFHGRTLHDDDSCQVIPVLPQVM
MILIPGQTLPLQLFHPQEVSMVRNLIQKDRTFAVLAYSNVQEREAQFGTTAEIYAYREEQDFGIEIVKVKAIGRQ
RFKVLELRTQSDGIQQAKVQILPECVLPSTMSAVQLESLNKCQIFPSKPVSREDQCSYKWWQKYQKRKFHCANLT
SWPRWLYSLYDAETLMDRIKKQLREWDENLKDDSLPSNPIDFSYRVAACLPIDDVLRIQLLKIGSAIQRLRCELD
IMNKCTSLCCKQCQETEITTKNEIFSLSLCGPMELM

FIGURE 983

CCCGCGTGCATACGGTTGCCGGC**ATG**GCACATTACAACTTCAAGAAAATTACGGTGGTGCCGTCCGCCAAGGACT
TCATAGACCTCACGTTGTCGAAGACTCAACGAAAGACTCCAACCGTTATTCATAAACATTACCAAATACATCGCA
TTAGACATTTTTACATGAGAAAAGTCAAATTTACTCAACAGAATTACCATGATAGACTTTCACAAATTCTAACAG
ATTTCCCCAAATTGGATGATATTCATCCGTTCTATGCTGATTTGATGAATATTCTCTACGACAAGGATCATTACA
AGTTGGCTCTGGGGCAAATAAATATTGCCAAAAATTTAGTGGACAATGTTGCTAAAGATTATGTGCGACTGATGA
AGTATGGCGACTCTCTCTACCGCTGCAAACAGCTGAAGCGTGCGGCCCTGGGACGGATGTGCACAGTGATCAAGA
GGCAGAAGCAGAGTTTGGAGTATTTGGAGCAAGTGCGTCAGCATTTATCCCGTTTGCCAACCATTGATCCGAATA
CCAGGACCCTGCTTTTGTGTGGGTACCCAAATGTTGGGAAGTCCAGCTTCATCAACAAGGTGACGAGAGCAGACG
TGGATGTCCAGCCCTATGCGTTCACAACCAAGTCTCTGTTTGTTGGGCACATGGATTATAAGTATCTACGTTGGC
AGGTTGTAGACACTCCTGGGATCCTGGACCACCCTCTGGAGGATAGGAACACCATCGAGATGCAGGCCATCACTG
CCCTGGCCCACCTCCGTGCTGCGGTCCTGTATGTGATGGATTTGTCTGAGCAGTGTGGGCATGGGCTGAGGGAGC
AGCTAGAACTCTTCCAGAACATCAGACCTCTCTTCATCAACAAGCCTCTCATAGTTGTAGCCAACAAATGTGATG
TGAAGAGAATAGCTGAACTTTCTGAAGATGATCAGAAAATATTTACAGATTTGCAGTCTGAAGGATTCCCTGTAA
TAGAGACCAGCACCCTGACTGAGGAAGGTGTTATTAAAGTTAAAACAGAGGCTTGCGATAGGCTTTTGGCTCATC
GAGTGGAAACCAAAATGAAGGGAAATAAAGTGAATGAGGTGCTGAATAGACTGCACCTGGCTATCCCAACCAGGA
GGGACGATAAGGAGAGGCCCCCTTTCATCCCTGAAGGAGTGGTGGCTCGCAGGAAGAGGATGGAAACTGAGGAGT
CCAGGAAGAAGAGGGAACGAGATCTTGAGCTGGAAATGGGAGATGATTATATTTTGGATCTTCAGAAGTACTGGG
ATTTAATGAATTTGTCTGAAAAACATGATAAGATACCAGAAATCTGGGAAGGCCATAATATAGCTGATTATATTG
ATCCAGCCATCATGAAGAAATTGGAAGAATTAGAAAAAGAAGAAGAGCTGAGAACAGCTGCTGGAGAGTATGACA
GTGTATCTGAGAGTGAAGACGAAGAGATGCTGGAAATCCGACAGCTGGCAAAGCAAATTCGAGAGAAAAAGAAGT
TGAAAATTCTGGAGTCCAAAGAAAAGAATACACAGGGACCCAGGATGCCGCGAACTGCTAAGAAGGTTCAGAGGA
CAGTTTTGGAGAAGGAGATGCGTAGTCTTGGTGTTGACATGGACGATAAAGACGATGCCCATTACGCAGTCCAGG
CAAGAAGATCCCGGAGCATCACTAGGAAAAGAAAGCGGGAAGACTCTGCTCCCCCGTCCTCTGTGGCCCGGAGTG
GGAGTTGCTCTCGAACTCCACGTGACGTTTCTGGTCTTAGGGATGTCAAGATGGTGAAGAAAGCCAAGACTATGA
AGAATGCTCAGAAGAAGATGAATCGGTTGGGGAAGAAAGGGGAGGCGGATAGACACGTGTTTGATATGAAGCCCA
AGCACTTGCTGTCTGGGAAGAGGAAAGCTGGTAAAAAGGACAGGAGA**TAG**TATCCGTTTGGTTGGCGTGGCTTCG
CTAGAGTGTTGCTGTTTATTTCCTGGTTTGGTACAGTATGGTTTCATGAAATTGGAGCTCTGTACAAACTGAAAA
AGACAAAATAAGTAAAGCACTTGTTGCTTTGCTGAAAACTATGGTTAACCCTATATAGGTGTGGGAAATTTTTGT
CACTGCATAATATTACAAATATTTTGAGTAGACAGTGTTTCCACATTTAATGGAGTATCAGTTGCTTCAGATTTT
CAGAACTGGGAAGATTTACTGGTGTAACTGGGTTGTTTTTGATGGAGAAAAACCTTATTTTCTTTTGTAAGAGCT
GGGAGCAAACACGTTTATGAGTGTGTCGGAATCCCGTGCTTAAAATACGCTCTTAAATTATTTTCTAGTCTTATT
TTACAATGTCTCATTGTAGTCTGTCTTCAACTATTTTATCCAAAATAAACCTCCAGAAGAAACTAAAAAAAAAAA
AAAAAAAAAAAA

FIGURE 984

MAHYNFKKITVVPSAKDFIDLTLSKTQRKTPTVIHKHYQIHRIRHFYMRKVKFTQQNYHDRLSQILTDFPKLDDI
HPFYADLMNILYDKDHYKLALGQINIAKNLVDNVAKDYVRLMKYGDSLYRCKQLKRAALGRMCTVIKRQKQSLEY
LEQVRQHLSRLPTIDPNTRTLLLCGYPNVGKSSFINKVTRADVDVQPYAFTTKSLFVGHMDYKYLRWQVVDTPGI
LDHPLEDRNTIEMQAITALAHLRAAVLYVMDLSEQCGHGLREQLELFQNIRPLFINKPLIVVANKCDVKRIAELS
EDDQKIFTDLQSEGFPVIETSTLTEEGVIKVKTEACDRLLAHRVETKMKGNKVNEVLNRLHLAIPTRRDDKERPP
FIPEGVVARRKRMETEESRKKRERDLELEMGDDYILDLQKYWDLMNLSEKHDKIPEIWEGHNIADYIDPAIMKKL
EELEKEEELRTAAGEYDSVSESEDEEMLEIRQLAKQIREKKKLKILESKEKNTQGPRMPRTAKKVQRTVLEKEMR
SLGVDMDDKDDAHYAVQARRSRSITRKRKREDSAPPSSVARSGSCSRTPRDVSGLRDVKMVKKAKTMKNAQKKMN
RLGKKGEADRHVFDMKPKHLLSGKRKAGKKDRR

FIGURE 985

GGCTGCGAGAAGACGACAGAAGGGGGAAGGGGCTGATGCGAACTGGGGCCACGGTAGCCATCGCGCTTTGCAGTT
CGGTCTCCTGGTGTACGGCCAACGCCAAGTAGGGGATTGCGTTCCCTCCAGTCGCAGACCCTATCAGATTTGGAT
ATGTCCTTCATATTTGATTGGATTTACAGTGGTTTCAGCAGTGTGCTACAGTTTTTAGGATTATATAAGAAAACT
GGTAAACTGGTATTTCTTGGATTGGATAATGCAGGAAAAACAACATTGCTACACATGCTAAAAGATGACAGACTT
GGACAACATGTCCCAACATTACATCCCACTTCCGAAGAACTGACCATTGCTGGCATGACGTTTACAACTTTTGAT
CTGGGTGGACATGTTCAAGCTCGAAGAGTGTGGAAAAACTACCTTCCTGCTATCAATGGCATTGTATTTCTGGTG
GATTGTGCAGACCACGAAAGGCTGTTAGAGTCAAAAGAAGAACTTGATTCACTAATGACAGATGAAACCATTGCT
AATGTGCCTATACTGATTCTTGGGAATAAGATCGACAGACCTGAAGCCATCAGTGAAGAGAGGTTGCGAGAGATG
TTTGGTTTATATGGTCAGACAACAGGAAAGGGGAGTATATCTCTGAAAGAACTGAATGCCCGACCCTTAGAAGTT
TTCATGTGTAGTGTGCTCAAAAGACAAGGTTACGGAGAAGGCTTCCGCTGGATGGCACAGTACATTGAT**TAA**CAC
AAACTCACATTGGTTCCAGGTCTCAACGTTCAGGCTTACTCAGAGATTTGATTGCTCAACATGCATAACTTGAAT
TCAATAGACTTTTGCTGGTTATAAAACAGATGTTTTTTAGATTATTAATATTAAATCAACTTAATTTGAATGAGA
ATTGAAAACTGATTCAAGTAAGTTTGAGTATCACAATGTTAGCTTTCTAATTCCATAAAAGTACTTGGTTTTTAC
AGTTTATAATCTGACATCACCCCAGCGCCATTTGTAAAGAGCAACTTTCCAGCAGTACATTTGAAGCACTTTTTA
ACAACATGAAACTATAAACCATATTTAAAAGCTCATCATGTTAAATTTTTTATGTACTTTTCTGGAACTAGTTTT
TAAATTTTAGATTATATGTCCACCTATCTTAAGTGTACAGTTAATAATTAGCTTATTCAATGATTGCATGATGCC
TTACAGTTTTCAATAACTTTTTTTCTTATGCAAACGTCATGCAATAAAACAAACTCTAATGTTTGGCAAAAAAAA
AAAAA

FIGURE 986

MSFIFDWIYSGFSSVLQFLGLYKKTGKLVFLGLDNAGKTTLLHMLKDDRLGQHVPTLHPTSEELTIAGMTFTTFD
LGGHVQARRVWKNYLPAINGIVFLVDCADHERLLESKEELDSLMTDETIANVPILILGNKIDRPEAISEERLREM
FGLYGQTTGKGSISLKELNARPLEVFMCSVLKRQGYGEGFRWMAQYID

FIGURE 987A

CCGGCCCGGCCCGCCCGGCCCAGCCGCTCCTGCTGGGCGCCCCAACCGGGTCCGGCCCGGGGGGGCGGGGGCCGC
GGCCGCCGAGG**ATG**GGGAAATCCAACAGCAAGTTGAAGCCCGAAGTTGTGGAGGAGCTGACCAGGAAGACCTACT
TTACCGAGAAGGAGGTCCAGCAGTGGTACAAAGGCTTCATCAAGGACTGCCCCAGTGGGCAGCTGGATGCGGCAG
GCTTCCAGAAGATCTACAAGCAATTCTTCCCGTTCGGAGACCCCACCAAGTTTGCCACATTTGTTTTCAACGTCT
TTGATGAAAACAAGGACGGGCGAATTGAGTTCTCCGAGTTCATCCAGGCGCTGTCGGTGACCTCACGGGGAACCC
TGGATGAGAAGCTACGGTGGGCCTTCAAGCTCTACGACTTGGACAATGATGGCTACATCACCAGGAATGAGATGC
TGGACATTGTGGATGCCATTTACCAGATGGTGGGGAATACCGTGGAGCTCCCAGAGGAGGAGAACACTCCTGAGA
AGAGGGTGGACCGGATCTTTGCCATGATGGATAAGAATGCCGACGGGAAGCTGACCCTGCAGGAGTTCCAGGAGG
GGTCCAAGGCAGACCCGTCCATTGTGCAGGCGCTGTCCCTCTACGACGGGCTGGTA**TAG**TCCCAGGCTGGAGCTG
GATGCCTGGGAACCACTCACCTCCTTCTGTGCCATGAGGCCACCTCAGCCCTGACACCAACCCCGTGCGTCCACC
CAGCCTTCTTCCGCATCCACACACAGCCGGCTGCCCTTGACCCGGGAGGCCCCGGCTCTCCTCTCCCCTGTCCTG
CACCCATCCCCCGCCTGAAGCCACCGGCTCCAATTGCCAGCAACCTCTGCTTGTCCGGAAAACGACAACACGAAA
TGGAAAAGGCTACAGCCCTCTGCATAAACCAAGGACTTGGCTGCCTCGCAGGCAGCCTCCGTTCCTCCCGCTCTC
TTGCGCGTGTGCTTTTGTTTTTTATTTTGAACAGACGTTTTAAAAGAAAAAAAAACAACTACCTTCTGTCCTAGA
AGACACAGACTGACAGATGGGGTGAAGGCCTGGGGACCTCAGAGAACTCTGCCTTGCCCTCGTCCCTCGTCCTTC
GGCAGCCGGAGAGGCTGTGGGTGGGCCGAGGGTGTCTAGGGGTTCTGCCTAGTCAACGTTATTTGTCGTCCCATC
TTTTGGCAGCAAAACCACCTGCGTGGCTAGGATGATTAATTATGAGGATGATGATTTTTTTTGTGATAACAGTAT
TGTGCTTTTTGTGGGGAAAGTGAGGTTTTTTTTTTATATACATATATAATTGATATCTTTAATTTATTGGTTGTT
AACTGTTGCTGCTGCCTGGTGTGTCCTCAGCTCCCAGGGCTGCGGGCCCACCGTTTACATGTGCACGCCCTGACC
CACCTGCCCACGCCGACTTGGGAGGATGGTGGCCTGCAGCGGCCAAGAAGCCAAAAAAAATTTTTTTTTTTCAG
ATACTGTGCTTGATTTTTGGAGAGGGGAGAGGTGGAAATTCCTAAATGGCTAATGCACTGTTCCCTCCAGCCCGA
ATGCCTCCTGCCAAACCCCTTTTCCCTGCTGCCTCTGTCCCCGCATCCTTGTTCTCCCCTGGGTCCGTAACATTT
TTTCCGAGGATGAACAGGGGACATCTTTAGGTTTCTCAACTCTTGCTTTGGTGTTTGCCGCAGCATGGAAAACAG
GGCGCCTAAGGCTGGGAGCTGGAAGAAGGGGCATTGGGTACCCAGGCAGAGTCAGGAGAGGTGGTCTTTGAAGTA
AGTTAGCAGAAATCAAGGGGACCCCCGCCTCCTTGGGCTGGGGAGGGGATTTCAAGATAGTTCATAACTCTCTCC
CGCTCTGCCTTCCCTCCTTCCTATCTGCTTTTTCCAGTAAACTGCATGGTGTCCTTCCCTGGCCTTCTCTTGGCT
CAAAGGCTGGGAGGGAGGGAAGGAGAGAAGAGTTCCAGGCAATCCCATCAATATAGTCCCTACACCTGGGGCTGC
GGCCCACATGTCTTCACGGAGGCTTCCAGCGGTGCCTGCCACTGAGGCAGGTGCGGCCCCAGGACCATCACCAGG
AATGCGAGGCCACCCTGGACCAGAGGTAGGAGCCCAAGGTCCGGCCCTTGCTCTTTGATTGTGGGCAGCCTCCTG
CCCTCTCTGGGTCTCAGTTGCCCCATCTGCAGAGCGAGGAGGCCCGGGCTGGTTGGTCTTGAAGGCCCTTTTCCA
TGCCGACATCATGTCACTCTAGGCCTGGGGTTCAGTTTCCTGTGGCTGGTGATGCTGTGGTTAAGTTTGCTTGAC
CCCAGCAGCCCGAGGGACTGTCTGAGTCACAGCACAGCCCCTATTGCGTGGCTGCTGGTGTGTGGGGTCAGTTCC
AGCAGATGAATGTGTCATGTGGCACACCTTGTCCCTTCCCGCAGCATTTCCTGGTTCCCCCCAGACCCTTGAGCG
CTCTTTGGGACCCAGAAGGAGTCCTTGCACAGGGAAGGCTTGAGGTGAGAAGCCGCTTCCCAGACTGTCAGGGCC
AGGCCTGGGTCTAGAATTCTTGCTGCTGCTTTGCAGAGTCAACAGCCCATCAGCCCATGTTTTAGAGGGGACACT
TTGGTCCTCGGTTCCCACCCTCAGCAAGCAGGCCTCCAGCCCGAGGAAGGCCTCTGCCGTAGTGACGTTGCCGTG
TGGGGCTGCGTGGCTGTTCCCCTTGGCTGGAGCATTCAGCCAACCCCAGCGTCCCCCCTGAGGCGTTCATTGGCA
GCCCCCTAGGACTGCACGCTGGCCCCACGGTAACCCCCCCTCCCCCACCAACATCCTGCAGGGATGGGGTCAGTG
GTTCCACCTTCACAGGCCACTTTGAAGGGTGGATTCTTTGAGGCCCCTGCCAGTCGGCTCCCTGCTCAGCTGCTG
GCCCGGGCGACCTGGGACTCAGCACCAACGGCTGAAGTTTCTCAGCTGGGCTCTGACCTGGGGTCTGGGGCAGGG
AACGAACATGGTGGCTTTGGGCTGAGAGGATGAGGGAGGTCTTTCCCAGGTCAAATTACTTTCCTTTGGCCTCTG
CCTGAGGCTCGATTTGCCTCTCTGGTCCAATGGGACTGACACTGTTGTACAACCTGACCTGTGGCTGAGGGTGTC
TGGGCTTAAGCATGTGGACCCCTTCGGTGTGTCTGGCCTTCCTCCATCGTCCTGCCCTTTGGCCTTTTGGTTTGA
AGCCACAGGTGTGGCTTCTGGCCTTAGCAGATGGTATGCTTGCGGACCGCAGCCCAGCATGCCGGTGGGCCCACA
GCCCGAGCCAGCCCAGAGCTGCCGGAAGGGCCGCCCTTCCCGGCCCTGGCGGGGTGCTGGACACTGGCCATTTTC
ACTAGAGTTTGCCTGGCAGGGACCGATCTCTGCCCCCTCCTCTCCCCAGGCCTCTGGCTGCAGTGATGCCGCAGA
ATCCTGAGCCAGGTGCCTCCTGAGCAGCCCGTGCGCCTCTCCACAGCGGCGTTTGCCACCCAATGCGGCTCGCTT
CAGATGCTCTGATGCAGAGGGCACGCCCATAGTCCCTCTGCAGAGCCTCGCACTGGGGCCAGGGCAGGCACCAGC

FIGURE 987B

CCCAGGCGGCCAGTCGGCCACGGCCTGTCCTCTTCCTCGTAGCGTCTGCTCCTCACTTTGTGTTGATGGTGACTT
AGGAGAATGTTCCGATTTTCCATGATCTAAGCAGGCCACGTTTAAAATAACATCAAGGCAAGCGTACGTGTCACC
CTCTGTACTGACATCTCCTCCCCTGAAATGCTTTTCAGTTTGACAGCCCGTTTCCTAGACAAGTGCACCTGGGGT
TTCAGGAACTTTGTGTTTTTTCGGAGGGGGTTGGTGGGGAGGTCGGGATGCCTGGGATCCCTTCCTGGAGAGGCA
GGCTGTCTCTGGAAAAAGCCTCCATTGCCCACCCGCCAGGCGGAAAGTCACCCTGTTCCCAGCGCGGTTTCAGCA
TTTAATTTTAAGGGAGCTAAGGAAGCGCGGCGCGCCCCCTGGTGGTGGTAAGCCGCCAACGCACCTGGGGGCTGC
AACCCCACCGGACGGGTGGTCCGGAGGGAGGCTGGAGCGGGGAGGCGAGGAGGGGGCTGTGAGTCCTCAGAGGCC
CTGGGCCACCACATTTCTGGCAGCGTTTCCCAGACACCCCTCTGCTAGGCCATCCCTGGATAGCAAGTGAATTAA
CTTAAGGGCACTGTGATGGGAAGCCTTGCCCCCCTCTTTTTTTTTTTTTTTTAATATCTGCGGAATAAACCCAA
TGGTTAATTTTTGAATGAATAAAAGGCTTTTGTTGAATAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 988

MGKSNSKLKPEVVEELTRKTYFTEKEVQQWYKGFIKDCPSGQLDAAGFQKIYKQFFPFGDPTKFATFVFNVFDEN
KDGRIEFSEFIQALSVTSRGTLDEKLRWAFKLYDLDNDGYITRNEMLDIVDAIYQMVGNTVELPEEENTPEKRVD
RIFAMMDKNADGKLTLQEFQEGSKADPSIVQALSLYDGLV

FIGURE 989

AGAGCTCGCGGTGGACTCCGACCCGGCGCAAC**ATG**GCCGCAGCCTCGCCTCTGCGCGACTGCCAGGCCTGGAAGG
ATGCGAGGCTCCCGCTCTCCACCACAAGCAACGAAGCCTGCAAGCTGTTCGATGCCACGCTGACCCAGTATGTAA
AATGGACCAATGACAAGAGTCTCGGTGGCATCGAGGGCTGCCTGTCAAAGCTCAAAGCAGCAGATCCAACCTTTG
TGATGGGCCACGCCATGGCTACTGGCCTTGTGCTGATTGGCACTGGAAGCTCCGTGAAGCTGGACAAAGAGCTGG
ACCTGGCTGTGAAGACAATGGTGGAGATTTCAAGAACCCAGCCGCTGACAAGGCGGGAGCAGCTGCACGTGTCTG
CAGTAGAGACATTTGCCAATGGGAACTTTCCGAAAGCCTGTGAACTATGGGAACAGATTCTCCAGGACCACCCGA
CAGACATGTTGGCCCTGAAATTTTCCCATGATGCTTATTTTTACCTGGGCTATCAGGAACAGATGAGAGATTCTG
TTGCTCGAATTTACCCCTTCTGGACACCTGACATCCCCCTAAGCAGCTATGTGAAAGGCATCTACTCTTTTGGCT
TGATGGAAACCAACTTCTACGACCAGGCAGAAAAACTCGCCAAAGAGGCTTTATCTATTAACCCGACAGACGCAT
GGTCGGTGCACACCGTCGCTCACATCCACGAGATGAAAGCAGAGATCAAGGATGGGTTGGAATTCATGCAGCACT
CAGAGACCCTCTGGAAGGACTCTGATATGTTGGCTTGTCATAACTATTGGCACTGGGCTTTATATCTGATTGAGA
AGGGCGAATATGAGGCCGCGCTGACCATCTACGATACCCACATCCTTCCCAGCCTGCAGGCCAACGATGCAATGC
TGGACGTGGTGGACAGCTGCTCCATGCTCTACCGCCTGCAGATGGAAGGAGTGTCTGTGGGCCACGGTGGCAGGA
TGTCCTGCCTGTGGCCCGGAAGCACAGCCGAGACCACATCCTGCTGTTCAATGACGCACACTTCC**TGA**TGGCATC
CCTGGGTGCACACGACCCCCAGACCACACAGGAGCTGCTGACCACCCTGCGGGACGCCAGCGAATCCCCAGGGGA
GAACTGCCAGCACCTCCTGGCCCGAGACGTGGGGCTGCCCCTGTGCCAGGCCCTGGTGGAGGCTGAGGACGGGAA
CCCTGACCGCGTCCTGGAGCTGCTCCTGCCCATCCGCTACCGGATCGTCCAGCTCGGTGGGAGCAATGCCCAGAG
AGACGTCTTCAACCAGCTGCTGATTCACGCGGCCTTAAACTGCACCTCCAGCGTCCATAAGAACGTAGCCCGGAG
CCTTCTGATGGAGCGTGATGCCTTGAAGCCCAACTCGCCCCTGACCGAGCGGCTCATCCGCAAGGCAGCTACCGT
CCACCTCATGCAGTGAGCCAGCCTGGCCGCTCCACCCTGCAGAACCTCAGTGGTGGCGTCACTGCGTCCAGTCAG
CTGCTCCACCGGGTTAGGGTCAGGAGACGGCCAGAGCCTGTTTGTTAGGGCTGTTAGAGGGTGATCTTCAGTTTT
ACAGGAAGTGGGTCACGGGTTAATTTTAAATGTGATTCCGAATCTCCTTTCAGTCCTCGAGAAGGGCCAATGAGC
ATTTTTCAGCAGTCACAGCCAGTGTGAGTGCTGCTCTTTCCACCTGCCTTGCAAATTCTGTTTCCCAGGGGAATG
TGTCTACTGCCTGGTGGTTCAAAGGTTGGAAGGCAGTGCAGAGGTGGGGGCTGATTCTGCTGGGACAGGTCTTCC
AGAGGCAGCCTCCCCCCACTGCCTGTCCCCGTCCCCACCAGGCTGCCCTTGGGATGGACCTTTTCATTCTTTTCT
TTATATTCTAGACAGTCTCTGTTGTCTCATTGTGTTGCTGTCCCATTTTTCAGGTGAGGGTACCGGGGTAGGGGA
GTGGCCTGCCCAGGGTCACACTATGAGAGGCCCCCACCTGCTGCCTTTGGACGCAGCCCCCTGCTGCTGCATCCA
CCACCCTTCTTACAGATCAGCGCGCACATGGGGTCCTTCTGCTGTCTCTGGGGCGAGTCTTGGAGCCCCCTGGGG
GGCTCTGTTGGTGCTGATTTGGACCCGTTTCTCTTTTTAAACTGCACATCATAACAGGGCTTCATGTCGAGCATG
ATTTTAATCATAAATGCACTTCTGAGGTGCAAGGATTGAGCTCAGAGCTGCTCTGTTGTGGCAAAACCCAAAGTG
CTGTGATGTGTGGCTGTGACAAGCCTGGAGCGGGTCCTGTGAGCGCCGCCTCTGTCTCCTGCTTCCTCACTGAAC
GCCTGCTGAATGTGCCGCTGACTCAGCTGTGCTGCTTTCAGCCCTCCTGTGAGGGGCGGTCCCAGTGCACAGATG
TTTTTCAAGTTCCTCAGTTTGTACTGAAATTAGGGATTCATCAGGGCAGGAAGCAGGCAGGCCTCTCAGAAGGGA
GAGGAGGCCTCCAAATCTATTGAGTCCCCACAGTTTGCTCAAGCCCAGGCAAATTTCTGTGATTAAAATGAATTC
ATCAGTTCCTCCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 990

MAAASPLRDCQAWKDARLPLSTTSNEACKLFDATLTQYVKWTNDKSLGGIEGCLSKLKAADPTFVMGHAMATGLV
LIGTGSSVKLDKELDLAVKTMVEISRTQPLTRREQLHVSAVETFANGNFPKACELWEQILQDHPTDMLALKFSHD
AYFYLGYQEQMRDSVARIYPFWTPDIPLSSYVKGIYSFGLMETNFYDQAEKLAKEALSINPTDAWSVHTVAHIHE
MKAEIKDGLEFMQHSETLWKDSDMLACHNYWHWALYLIEKGEYEAALTIYDTHILPSLQANDAMLDVVDSCSMLY
RLQMEGVSVGHGGRMSCLWPGSTAETTSCCSMTHTS

FIGURE 991

CGGACGCGTGGGCGAGGTGGCAATTGGGGAAGGGGTTCTGGGCTGCCGCAGGCACACAGGCCAGAGCTTCGTGGA
TACCTGCAGGGCCCAAAGGTCCCTCCCTGTTTTGAAGAGTGAGTGATGGCTATGAGGTAGCGGCCAGGCTGATCA
CCCCTGCGTTGGCTGGAGGCAGAATTCTGTAAATCCTCGCCAAGTCTTTCTCCAGGCCACTGGTTAGCTCATCTC
AGCCTCCTCTGGGAGCATCAACACCAACATGGCACAGGGGACTGCAGTGGTGTGCTTTGGACCTGTGTACCCACC
CAAGGCTAAAGGCAGAGCCAGATGGAGAAGGAAAGGCAAGTGACTTGTCCAGAGCCACTCTGTCAAAAGGGGACT
TGAGTCCTCAGGGCTGTTGACTCCAAAGCTGACAAGCAGGAGCCAAGTTACACCCTGTTTAACCCTGCCTTCAAA
GGGACGACTCTGTAAGATTCTCTGCTACTTATTCAAGTTGACACG**ATG**CCCTTCACACTCCACCTGAGGTCCCGC
CTTCCCTCTGCCATAAGGAGTTTGATTCTACAAAAGAAACCAAACATCAGAAATACATCCAGCATGGCTGGAGAG
CTCCGACCAGCCAGCCTGGTGGTCCTGCCCAGGTCCCTTGCTCCAGCTTTTGAAAGATTCTGCCAGGTCAACACT
GGTCCTCTACCCCTGCTGGGCCAGAGTGAGCCAGAAAAGTGGATGCTGCCCCCTCAAGGTGCTATCTCAGAGACC
AGGATGGGCCATCCCCAGTTCTGGAAATACGAGTTCGGTGCCTGCACCGGTAGCCTGGCTTCGCTGGAGCAGTAC
TCGGAGCAGCTGAAGGACATGGTGGCCTTCTTCCTGGGCTGCAGCTTCTCCCTGGAGGAGGCCTTGGAGAAAGCG
GGGCTCCCCAGAAGAGACCCAGCAGGTCACAGCCAGACAACAGTGCCTTGTGTTACCCATGCTGGCTTCTGCTGC
CCTCTGGTGGTCACGATGAGGCCCATTCCCAAGGACAAGCTGGAAGGGCTGGTGCGGGCCTGCTGCTCCCTCGGA
GGTGAGCAGGGGCAACCTGTTCACATGGGCGACCCAGAACTGTTGGGAATCAAAGAGCTTTCCAAACCTGCCTAC
GGGGATGCCATGGTGTGTCCCCCAGGGGAGGTTCCAGTGTTCTGGCCTTCTCCGCTGACCAGTCTCGGAGCTGTC
AGCAGCTGTGAGACCCCACTGGCTTTTGCCAGCATCCCAGGCTGCACAGTTATGACTGACCTGAAGGATGCAAAG
GCTCCACCTGGTTGTCTCACCCCAGAGAGAATTCCAGAGGTCCATCACATTTCCCAAGATCCTCTGCACTACAGC
ATCGCGTCAGTCTCTGCTTCTCAGAAGATCAGAGAACTAGAGTCTATGATCGGCATAGACCCAGGGAACCGGGGG
ATTGGGCACCTGCTCTGTAAAGATGAGCTGCTGAAGGCCTCTCTCTCGCTGTCCCATGCCCGCTCAGTGCTCATC
ACCACTGGGTTCCCCACACATTTCAATCATGAGCCTCCAGAAGAGACAGATGGCCCACCAGGAGCTGTTGCTCTG
GTTGCCTTCCTGCAGGCCTTGGAGAAGGAGGTCGCCATAATCGTTGACCAGAGAGCCTGGAACTTGCACCAGAAG
ATTGTTGAAGATGCTGTTGAGCAAGGTGTTCTGAAGACGCAGATCCCGATATTAACTTACCAAGGTGGATCAGTG
GAAGCTGCTCAGGCATTCCTGTGCAAAAATGGGGACCCGCAGACACCTAGATTTGACCACCTGGTGGCCATAGAG
CGTGCCGGAAGAGCTGCTGATGGCAATTACTACAATGCAAGGAAGATGAACATCAAGCACTTGGTTGACCCCATT
GACGATCTTTTTCTTGCTGCGAAGAAGATTCCTGGAATCTCATCAACTGGAGTCGGTGATGGAGGCAACGAGCTT
GGGATGGGTAAAGTCAAGGAGGCTGTGAGGAGGCACATACGGCACGGGGATGTCATCGCCTGCGACGTGGAGGCT
GACTTTGCCGTCATTGCTGGTGTTTCTAACTGGGGAGGCTATGCCCTGGCCTGCGCACTCTACATCCTGTACTCA
TGTGCTGTCCACAGTCAGTACCTGAGGAAAGCAGTCGGACCCTCCAGGGCACCTGGAGATCAGGCCTGGACTCAG
GCCCTCCCGTCGGTCATTAAGGAAGAAAAAATGCTGGGCATCTTGGTGCAGCACAAAGTCCGGAGTGGCGTCTCG
GGCATCGTGGGCATGGAGGTGGATGGGCTGCCCTTCCACAACACCCACGCCGAGATGATCCAGAAGCTGGTGGAC
GTCACCACGGCACAGGTG**TAA**CCGTCCATGTTCCGTGTGAGCAGAGTCCCTACCAACGGGCAGGTCTGCATCCGG
GGAGAATGCAGCTGCTTCTGGCGACAATCCTGCTAGTAAACACTGGTCTTCGGTGAGCAACGAACACTCGCCTGG
CCTGGGAAACTGCATGCCCACTTTCTGGGAGGGGTTAGTGCAGGTGCCGTGGACAAAGGACAACATTTCTCTGGG
GCTTTTTAACTTTTATTCCTAAGACTCTAAAGGCGTTGATTTCAACCCTCCTTCACTCTGGCTTCTTCAGGCAAC
CCACGTGGTCTCCTGTGAGAATCTTCTCGACAGTTACTTATGGGGACACTTGTGAACAATTAACTGCCAGGCAGA
GCATGAGAACAAACATTCCCAGGCCATGTAGGATAGGATACTCCAGACTCCAGTCATCCTCCCCCATCCATGGTT
TCTGTTACTCATGGTTTCAGTTACTCATAGCCAACTGCAGACCGAAAATACTAAATGAAAAATTTCAGAAATAAA
CAACTCTTAAGTTTTAAAAAAAAAAAAAAAAAA

FIGURE 992

MPFTLHLRSRLPSAIRSLILQKKPNIRNTSSMAGELRPASLVVLPRSLAPAFERFCQVNTGPLPLLGQSEPEKWM
LPPQGAISETRMGHPQFWKYEFGACTGSLASLEQYSEQLKDMVAFFLGCSFSLEEALEKAGLPRRDPAGHSQTTV
PCVTHAGFCCPLVVTMRPIPKDKLEGLVRACCSLGGEQGQPVHMGDPELLGIKELSKPAYGDAMVCPPGEVPVFW
PSPLTSLGAVSSCETPLAFASIPGCTVMTDLKDAKAPPGCLTPERIPEVHHISQDPLHYSIASVSASQKIRELES
MIGIDPGNRGIGHLLCKDELLKASLSLSHARSVLITTGFPTHFNHEPPEETDGPPGAVALVAFLQALEKEVAIIV
DQRAWNLHQKIVEDAVEQGVLKTQIPILTYQGGSVEAAQAFLCKNGDPQTPRFDHLVAIERAGRAADGNYYNARK
MNIKHLVDPIDDLFLAAKKIPGISSTGVGDGGNELGMGKVKEAVRRHIRHGDVIACDVEADFAVIAGVSNWGGYA
LACALYILYSCAVHSQYLRKAVGPSRAPGDQAWTQALPSVIKEEKMLGILVQHKVRSGVSGIVGMEVDGLPFHNT
HAEMIQKLVDVTTAQV

FIGURE 993

GGGCAAACCCTTTGAAAAATATTCTAAATGAAAATGACATAGTATTCATAGTGGAAAAAGTGCCTTTAGAAAAGG
AAGAAACAAGTCATATTGAAGAACTTCAATCTGAAGAAACTGCCATATCTGATTTCTCTACTGGCGAAAATGTTG
GACCACTTGCTTTACCAGTTGGGAAGGCAAGGCAGTTAATTGGACTTTACACC**ATG**GCTCACAATCCTAATATGA
CCCATTTGAAGATTAATCTGCCTGTTACTGCCCTTCCCCCCCTTTGGGTAAGATGTGACAGTTCAGATCCTGAAG
GTACTTGTTGGCTAGGAGCTGAGCTTATCACAACAAACAACAGCATTACAGGAATTGTCTTATATGTGGTCAGTT
GTAAAGCTGATAAAAATTATTCTGTAAATCTTGAAAACCTAAAAAATTTACACAAGAAAAGACATCACT**T**GTCTA
CTGTAACATCCAAAGGCTTTGCCCAGTATGAGCTCTTTAAGTCCTCTGCCTTGGATGATACAATCACAGCATCAC
AAACTGCGATCGCTTTGGATATTTCCTGGAGTCCTGTGGATGAGATTCTTCAAATCCCTCCACTCTCTTCAACTG
CAATC**TGA**ATATTAAAGTGGAATCAGGAGAGCCCAGAGGTCCTTTGAATCATCTCTACAGAGAACTGAAATTTCT
TCTTGTTTTGGCTGATGGTTTGAGGACTGGTGTCACTGAATGGCTCGAGCCCCTGGAAGCAAAATCTGCTGTTGA
ACTTGTTCAGGAATTTCTGAATGACTTAAATAAGCTGGATGGATTTGGTGATTCTACAAAAAAAGACACTGAGGT
TGAGACCTTGAAGCATGACACTGCTGCAGTCGATCGTTCCGTCAAGCGTCTTTTCAAAGTTCGGAGTGATCTTGA
TTTTGCTGAGCAACTGTGGTGCAAAATGAGCAGTAGTGTGATTTCATACCAAGACTAGGTGAAGTGTTTCACATT
GATCATCCAGAGTCTACAACGTGGTGATATACAGCCATGGCTCCATAGTGGAAGTAACAGTTTACTAAGTAAGCT
CATTCATCAGTCTTATCATGGAACCATGGACACAGTTTCTCTCAGTGGGACTATTCCAGTTCAAATGCTTTTGGA
AATTGGTTTGGACAAACTAAAGAAAGATTATATCAGTTTTTTCATAGGTCAGGAACTTGCATCTTTGAATCATTT
GGAATACTTCATTGCTCCATCAGTAGATATACAAGAACAGGTTTATCGTGTCCAAAAACTCCACCATATTCTAGA
AATATTAGTCAGTTGCATGCCTTTCATTAAATCTCAACATGAACTCCTCTTTTCTTTAACACAGATCTGCATAAA
GTATTACAAACAAAATCCTCTTGATGAGCAACACATTTTTCAGCTGCCAGTCAGACCAACTGCTGTAAAGAACTT
ATATCAAAGTGAGAAGCCACAGAAATGGAGAGTGGAAATATATAGTGGTCAAAAGAAGATTAAGACAGTTTGGCA
ACTGAGTGACAGCTCACCCATAGGCCATCTGAATTTTCACAAACCTGATTTTTCGGAATTAACACTAAGCGGTAG
CCTGGAAGAAAGGATATTCTTTACTAACATGGTTACCTGCAGCCAGGTGCATTTCAAGTGAAGTGTGCTGATGAA
GTCCTCTATAAGCACAAGCC

FIGURE 994

MAHNPNMTHLKINLPVTALPPLWVRCDSSDPEGTCWLGAELITTNNSITGIVLYVVSCKADKNYSVNLENLKNLH
KKRHHLSTVTSKGFAQYELFKSSALDDTITASQTAIALDISWSPVDEILQIPPLSSTAI

FIGURE 995

GTTCGGAGCGGGCGAGCGGAGTTAGCAGGGCTTTACTGCAGAGCGCGCCGGGCACTCCAGCGACCGTGGGGATCA
GCGTAGGTGAGCTGTGGCCTTTTGCGAGGTGCTGCAGCCATAGCTACGTGCGTTCGCTACGAGGATTGAGCGTCT
CCACCCAGTAAGTGGGCAAGAGGCGGCAGGAAGTGGGTACGCAGGGGCGCAAGGCGCACAGCCTCTAGACGACTC
GCTTTCCCTCCGGCCAACCTCTGAAGCCGCGTCCTACTTTGACAGCTGCAGGGCCGCGGCCTGGTCTTCTGTGCT
TCACCATCTACATA**ATG**AATCCCAGTATGAAGCAGAAACAAGAAGAAATCAAAGAGAATATAAAGAATAGTTCTG
TCCCAAGAAGAACTCTGAAGATGATTCAGCCTTCTGCATCTGGATCTCTTGTTGGAAGAGAAAATGAGCTGTCCG
CAGGCTTGTCCAAAAGGAAACATCGGAATGACCACTTAACATCTACAACTTCCAGCCCTGGGGTTATTGTCCCAG
AATCTAGTGAAAATAAAAATCTTGGAGGAGTCACCCAGGAGTCATTTGATCTTATGATTAAAGAAAATCCATCCT
CTCAGTATTGGAAGGAAGTGGCAGAAAAACGGAGAAAGGCGCTGTATGAAGCACTTAAGGAAAATGAGAAACTTC
ATAAAGAAATTGAACAAAAGGACAATGAAATTGCCCGCCTGAAAAAGGAGAATAAAGAACTGGCAGAAGTAGCAG
AACATGTACAGTATATGGCAGAGCTAATAGAGAGACTGAATGGTGAACCTCTGGATAATTTTGAATCACTGGATA
ATCAGGAATTTGATTCTGAAGAAGAAACTGTTGAGGATTCTCTAGTGGAAGACTCAGAAATTGGCACGTGTGCTG
AAGGAACTGTATCTTCCTCTACGGATGCAAAGCCATGTATA**TGA**AATGCATTAATATTTGACTGTTGAGAATTTT
ACTGCCGAAGTTTACCTCCACTAGTTCTTTGTAGCAGAGTACATAACTACATAATGCCAACTCTGGAATCAAATT
TCCTTGTTTGAATCCTGGGACCCTATTGCATTAAAGTACAAATACTATGTATTTTTAATCTATGATGGTTTATGT
GAATAGGATTTTCTCAGTTGTCAGCCATGACTTATGTTTATTACTAAATAAACTTCAAACTCCTGTGGAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 996

MNPSMKQKQEEIKENIKNSSVPRRTLKMIQPSASGSLVGRENELSAGLSKRKHRNDHLTSTTSSPGVIVPESSEN
KNLGGVTQESFDLMIKENPSSQYWKEVAEKRRKALYEALKENEKLHKEIEQKDNEIARLKKENKELAEVAEHVQY
MAELIERLNGEPLDNFESLDNQEFDSEEETVEDSLVEDSEIGTCAEGTVSSSTDAKPCI

FIGURE 997

ACGAGGGGAGCTCCGGCTGCGTCTTCCCGCAGCGCTACCCGCC**ATG**CGCCTGCCGCGCCGGGCCGCGCTGGGGCT
CCTGCCGCTTCTGCTGCTGCTGCCGCCCGCGCCGGAGGCCGCCAAGAAGCCGACGCCCTGCCACCGGTGCCGGGG
GCTGGTGGACAAGTTTAACCAGGGGATGGTGGACACCGCAAAGAAGAACTTTGGCGGCGGGAACACGGCTTGGGA
GGAAAAGACGCTGTCCAAGTACGAGTCCAGCGAGATTCGCCTGCTGGAGATCCTGGAGGGGCTGTGCGAGAGCAG
CGACTTCGAATGCAATCAGATGCTAGAGGCGCAGGAGGAGCACCTGGAGGCCTGGTGGCTGCAGCTGAAGAGCGA
ATATCCTGACTTATTCGAGTGGTTTTGTGTGAAGACACTGAAAGTGTGCTGCTCTCCAGGAACCTACGGTCCCGA
CTGTCTCGCATGCCAGGGCGGATCCCAGAGGCCCTGCAGCGGGAATGGCCACTGCAGCGGAGATGGGAGCAGACA
GGGCGACGGGTCCTGCCGGTGCCACATGGGGTACCAGGGCCCGCTGTGCACTGACTGCATGGACGGCTACTTCAG
CTCGCTCCGGAACGAGACCCACAGCATCTGCACAGCCTGTGACGAGTCCTGCAAGACGTGCTCGGGCCTGACCAA
CAGAGACTGCGGCGAGTGTGAAGTGGGCTGGGTGCTGGACGAGGGCGCCTGTGTGGATGTGGACGAGTGTGCGGC
CGAGCCGCCTCCCTGCAGCGCTGCGCAGTTCTGTAAGAACGCCAACGGCTCCTACACGTGCGAAGATGTGGACGA
GTGCTCACTAGCAGAAAAAACCTGTGTGAGGAAAAACGAAACTGCTACAATACTCCAGGGAGCTACGTCTGTGT
GTGTCCTGACGGCTTCGAAGAAACGGAAGATGCCTGTGTGCCGCCGGCAGAGGCTGAAGCCACAGAAGGAGAAAG
CCCGACACAGCTGCCCTCCCGCGAAGACCTG**TAA**TGTGCCGGACTTACCCTTTAAATTATTCAGAAGGATGTCCC
GTGGAAAATGTGGCCCTGAGGATGCCGTCTCCTGCAGTGGACAGCGGCGGGGAGAGGCTGCCTGCTCTCTAACGG
TTGATTCTCATTTGTCCCTTAAACAGCTGCATTTCTTGGTTGTTCTTAAACAGACTTGTATATTTTGATACAGTT
CTTTGTAATAAAATTGACCATTGTAGGTAATCAGGAAAAAAAAAAAAAAAAAAAA

FIGURE 998

MRLPRRAALGLLPLLLLLPPAPEAAKKPTPCHRCRGLVDKFNQGMVDTAKKNFGGGNTAWEEKTLSKYESSEIRL
LEILEGLCESSDFECNQMLEAQEEHLEAWWLQLKSEYPDLFEWFCVKTLKVCCSPGTYGPDCLACQGGSQRPCSG
NGHCSGDGSRQGDGSCRCHMGYQGPLCTDCMDGYFSSLRNETHSICTACDESCKTCSGLTNRDCGECEVGWVLDE
GACVDVDECAAEPPPCSAAQFCKNANGSYTCEDVDECSLAEKTCVRKNENCYNTPGSYVCVCPDGFEETEDACVP
PAEAEATEGESPTQLPSREDL

FIGURE 999

GGCTGACCCACCTACCCGCGATCCTGCCCATGGCTGACGGGCTCTTTCGGCGCAGACCCTGGGGTCTCGAGCAGA
TTCGCCCGGACCCCGAGTCCGAAGGCCTGTTTGACAAGCCTCCCCCGGAAGACCCTCCCGCTGCCCGCGGGCCCA
GGTCGGCGTCGGCCGCGGGCAAGAAGGCTGGTCGGCGCGCGGGCGGGAGGGCGCAGGGGGGCCGCGCCGGGCAGC
CCCCGAAGGCCGCATCGCACCCCCCGCCCAAGAAGGAGGCGCCTCCACTGGACGAGGGCTGCTATCTCGACCATT
TTCCGCACCTCTCCATCTTCATCTACGCAGCCATCGCCTTCTCCATCACCTCCTGCATCTTTACCTATATCCATT
TACAGCTTGCCTGAGTGGCCAGCGCGGGACGGGGTGGGCGCAGGACCGAGCGGGGAGGGAAAGGGAAAACGGGGC
TCGGCATTTTGTGTTTTAGAACAGCGCTGCACCCCCTTCATGTAGCTTTCGATGCTTGTTTCTTTCCGTCTTTGT
TGTCACTATCTTTGTCTATCAGTACGAAAGTACAAAGTAGCTGCCGGCAATGAAATAGGGGTGCTGTTTGCACCT
GCAGGTTAGGGGTGGAGGCGTTTAGAATTTTGGGGTGTGATTGAGCCCCGTTTATAATTAGA**ATG**CCCCTGGACC
CCTACCACTCTGTGACGTGGGGGCACGCGCAGGGATCCCATCATTTTGTGTTTGGGGAGCTCAGAGTGCGCCCAA
TCTTGGAATCTTTAAGGGATGAGCCAGACCCAGACCCGCGGCCTTCTAGAGAGGGTCCGGCAGGGAGGGTCGGCG
CCCTGGCCCGGGATGGGCCGGAGCCCTGTGATGCTGCATCGCCCCCAGGAGGAGCCAGCTGTGCCCCAGAGTTGG
CGCGGCCGAGAGAGGACAAGAGCGCGCAGCAGGCGAAGCTGGAGGGCGGGACTCGACTTTGTTGTCGCTGCCCGG
AGGAGTCGAGACTGGTACCCGGAGGAGCTGTCTCACCAGGAGACCACGTCCTGGAAGTGTCCGGGACTCGCGGGA
CCTGTGGCTGCAGACCCCGCCGGCACGCAGGCCCAGAGCTGGCGCACTCC**TGA**GGATGAGACTCTGGGGGCCCTA
GCCGGGGTCCACGGGAGGGCTGTCCTTGGGGACTCTAGGATGGCTTCGTTCTGGCCCGGCTCACTTCTGGAGCTG
TGAGACCCAAGACAAAAGGGGCTGAGGGATTTCTCATTGACAAGAGTTCGTGCGGGAAAACCACCTGACCCCTAG
GGATTTGTCATCTTAAGACTCAAAAGGCTTAATACCAGGAACCACCTTGGCAAGATATTTACCCACCGGCCATCT
CTGTTTACTCATGAATGTTAAATGTTAAAACGCAGCGCTCTAACCCTGCATATTATTTACTTGCAAATGTCTGTA
ATCTGTAATTGTGATGCCTCTGATGGAATAAATTATCTTTTTCAGTCTCCTCTAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 1000

MPLDPYHSVTWGHAQGSHHFVFGELRVRPILESLRDEPDPDPRPSREGPAGRVGALARDGPEPCDAASPPGGASC
APELARPREDKSAQQAKLEGGTRLCCRCPEESRLVPGGAVSPGDHVLEVSGTRGTCGCRPRRHAGPELAHS

FIGURE 1001

CGCTGTTGTTAGTCACCGCGGAGCCGCCGAAACCTGCAGGAGTCTACTATGCAACTGCATACTGG**ATG**CCTGCTG
AAAAGACAGTACAAGTCAAAAATGTAATGGACAAGAATGGGGACGCCTATGGCTTTTACAATAACTCTGTGAAAA
CCACAGGCTGGGGCATCCTGGAGATCAGAGCTGGCTATGGCTCTCAAACCCTGAGCAATGAGATCATCATGTTTG
TGGCTGGCTTTTTGGAGGGTTACCTCACTGCCCCACACATGAATGACCACTACACAAACCTCTACCCACAGCTGA
TCACGAAACCTTCCATCATGGATAAAGTGCAGGATTTTATGGAGAAGCAAGATAAGTGGACCCGGAAAAATATCA
AAGAATACAAGACTGATTCATTTTGGAGACATACAGGCTATGTGATGGCACAAATAGATGGCCTCTATGTAGGAG
CAAAGAAGAGGGCTATATTAGAAGGGACAAAGCCAATGACCCTGTTCCAGATTCAGTTCCTGAATAGTGTTGGAG
ATCTATTGGATCTGATTCCCTCACTCTCTCCCACAAAAAACGGCAGCCTAAAGGTTTTTAAGAGATGGGACATGG
GACATTGCTCCGCTCTTATCAAGGTTCTTCCTGGATTTGAGAACGTCCTTTTTGCTCACTCAAGCTGGTACACGT
ATGCAGCCATGCTCAGGATATATAAACACTGGGACTTCAACATCATAGATAAAGATACCAGCAGTAGTCGCCTCT
CTTTCAGCAGTTACCCAGGGTTTTTGGAGTCTCTGGATGATTTTTACATTCTTAGCAGTGGATTGATATTGCTGC
AGACCACAAACAGTGTGTTTAATAAAACCCTGCTAAAGCAGGTAATACCCGAGACTCTCCTGTCCTGGCAAAGAG
TCCGTGTGGCCAATATGATGGCAGATAGTGGCAAGAGGTGGGCAGACATCTTTTCAAAATACAACTCTGGCACCT
ATAACAATCAATACATGGTTCTGGACCTGAAGAAAGTAAAGCTGAACCACAGTCTTGACAAAGGCACTCTGTACA
TTGTGGAGCAAATTCCTACATATGTAGAATATTCTGAACAAACTGATGTTCTACGGAAAGGATATTGGCCCTCCT
ACAATGTTCCTTTCCATGAAAAAATCTACAACTGGAGTGGCTATCCACTGTTAGTTCAGAAGCTGGGCTTGGACT
ACTCTTATGATTTAGCTCCACGAGCCAAAATTTTCCGGCGTGACCAAGGGAAAGTGACTGATACGGCATCCATGA
AATATATCATGCGATACAACAATTATAAGAAGGATCCTTACAGTAGAGGTGACCCCTGTAATACCATCTGCTGCC
GTGAGGACCTGAACTCACCTAACCCAAGTCCTGGAGGTTGTTATGACACAAAGGTGGCAGATATCTACCTAGCAT
CTCAGTACACATCCTATGCCATAAGTGGTCCCACAGTACAAGGTGGCCTCCCTGTTTTTCGCTGGGACCGTTTCA
ACAAAACTCTACATCAGGGCATGCCAGAGGTCTACAACTTTGATTTTATTACCATGAAACCAATTTTGAAACTTG
ATATAAAA**TGA**AGGAGGGAGATGACGGACTAGAAGACTGTAAATAAGATACCAAAGGCACTATTTTAGCTATGTT
TTTCCCATCAGAATTATGCAATAAAATATATTAATTTGTCAAAAAAAAAAAAAAAAA

FIGURE 1002

MPAEKTVQVKNVMDKNGDAYGFYNNSVKTTGWGILEIRAGYGSQTLSNEIIMFVAGFLEGYLTAPHMNDHYTNLY
PQLITKPSIMDKVQDFMEKQDKWTRKNIKEYKTDSFWRHTGYVMAQIDGLYVGAKKRAILEGTKPMTLFQIQFLN
SVGDLLDLIPSLSPTKNGSLKVFKRWDMGHCSALIKVLPGFENVLFAHSSWYTYAAMLRIYKHWDFNIIDKDTSS
SRLSFSSYPGFLESLDDFYILSSGLILLQTTNSVFNKTLLKQVIPETLLSWQRVRVANMMADSGKRWADIFSKYN
SGTYNNQYMVLDLKKVKLNHSLDKGTLYIVEQIPTYVEYSEQTDVLRKGYWPSYNVPFHEKIYNWSGYPLLVQKL
GLDYSYDLAPRAKIFRRDQGKVTDTASMKYIMRYNNYKKDPYSRGDPCNTICCREDLNSPNPSPGGCYDTKVADI
YLASQYTSYAISGPTVQGGLPVFRWDRFNKTLHQGMPEVYNFDFITMKPILKLDIK

FIGURE 1003

CGGAAGCAGGAAGTGAGTTTGCGAACGGAGCAGCTGCTGCAGGGCCC**ATG**GCGGACACCCAGTACATCCTGCCCA
ATGACATCGGCGTGTCTAGCCTGGACTGCCGTGAGGCCTTCCGCCTGCTGTCACCCACAGAGCGCCTCTATGCCT
ACCACCTGTCCCGTGCCGCCTGGTACGGAGGCCTGGCTGTGCTGCTTCAGACCTCCCCTGAGGCCCCCTACATCT
ATGCTCTGCTCAGCCGCCTCTTCCGCGCCCAGGACCCCGACCAGCTGCGCCAACATGCCCTGGCTGAAGGCCTTA
CCGAGGAGGAGTATCAGGCGTTCCTGGTCTATGCCGCGGGTGTTTACTCCAACATGGGCAACTACAAGTCCTTTG
GTGACACCAAGTTTGTTCCCAACTTGCCCAAGGAAAAGCTGGAACGGGTGATCCTAGGGAGTGAGGCTGCTCAGC
AGCACCCAGAAGAAGTCAGGGGCCTCTGGCAGACCTGCGGGGAGCTTATGTTCTCTCTGGAGCCAAGGCTTCGAC
ACCTCGGACTGGGGAAGGAGGGAATCACCACCTATTTCTCTGGGAATTGTACCATGGAAGATGCCAAATTGGCCC
AGGACTTTCTGGACTCACAGAACCTCAGTGCCTACAACACCCGGCTCTTCAAAGAGGTCGATGGAGAAGGGAAGC
CCTACTACGAGGTGCGGCTGGCTTCTGTGCTTGGCTCAGAGCCTTCCCTGGACTCTGAGGTGACTTCCAAGCTGA
AGAGCTATGAATTCCGGGGAAGCCCTTTCCAGGTGACCCGGGGGGACTACGCGCCCATCCTCCAGAAGGTGGTGG
AGCAGCTGGAGAAAGCCAAGGCCTATGCAGCCAACAGCCACCAGGGGCAGATGCTGGCCCAGTATATAGAGAGCT
TCACCCAGGGCTCCATCGAGGCCCACAAGAGGGGCTCCCGCTTCTGGATCCAGGACAAAGGCCCCATCGTGGAGA
GTTACATCGGGTTCATCGAGAGCTACCGCGACCCCTTTGGTTCCCGAGGAGAATTTGAAGGTTTCGTAGCTGTGG
TGAACAAGGCCATGAGTGCCAAGTTTGAGCGGCTGGTGGCGAGCGCAGAGCAGCTGCTGAAGGAGCTGCCCTGGC
CCCCAACCTTTGAGAAGGACAAGTTCCTCACCCCTGACTTCACCTCCCTGGATGTTCTCACCTTCGCTGGCTCCG
GCATCCCTGCCGGCATCAACATCCCCAACTACGATGATCTGAGGCAGACGGAAGGCTTTAAGAACGTGTCGCTGG
GGAATGTGCTGGCTGTGGCCTACGCCACGCAGCGGGAGAAGCTTACCTTTCTGGAGGAGGATGACAAGGACCTGT
ACATCCTCTGGAAGGGGCCCTCCTTCGATGTGCAGGTGGGCCTGCACGAGCTGCTGGGCCATGGCAGTGGCAAGC
TCTTCGTACAGGACGAAAAAGGAGCATTCAACTTTGACCAGGAAACAGTGATCAACCCAGAGACGGGCGAGCAGA
TTCAGAGCTGGTATCGGAGCGGGGAGACCTGGGATAGCAAGTTCAGCACCATCGCCTCCAGCTACGAAGAGTGCC
GGGCTGAGAGCGTGGGTCTCTACCTCTGTCTCCACCCGCAAGTGCTGGAGATCTTTGGCTTTGAGGGGGCTGATG
CGGAGGACGTGATCTACGTGAACTGGCTCAACATGGTTCGGGCCGGGCTGCTCGCTCTGGAGTTCTACACACCTG
AGGCCTTCAACTGGCGACAGGCCCATATGCAGGCCCGGTTTGTGATCCTGAGAGTCTTGCTGGAGGCTGGCGAGG
GACTCGTTACCATCACTCCCACCACAGGCTCCGATGGGCGCCCAGATGCCCGGGTCCGCCTCGACCGCAGCAAGA
TCCGGTCTGTGGGCAAGCCTGCTCTAGAGCGCTTCCTGCGGAGACTTCAGGTGCTGAAGTCCACAGGGGATGTGG
CCGGAGGGCGGGCCCTGTACGAGGGGTATGCAACGGTCACTGATGCGCCCCCCGAGTGCTTCCTCACCCTCAGGG
ACACGGTGCTGCTGCGTAAGGAATCTCGGAAGCTCATTGTTCAGCCCAACACTCGCCTTGAAGGCTCAGACGTGC
AGCTTCTGGAATACGAGGCGTCAGCTGCTGGCCTCATCCGATCCTTCTCTGAGCGTTTCCCAGAGGATGGACCCG
AGTTGGAGGAGATCCTCACACAGCTGGCCACAGCCGATGCCCGATTCTGGAAGGGCCCCAGTGAGGCCCCATCTG
GCCAAGCT**TGA**GGAAGATGTGTGGCCTTGCCCCCAATTCCATCAGACCAAGGCTGCAAGTGGCCCTCCATTCGTG
TGTGTATTTAGGGGCTGGGGAGGGGGAGGGGCAGGAGCTTGGACCTTGGTACTACCTCAGCTGAGGGTGGTGACA
CAACCCCTTCCATTTGTCAGCACTTTCCAGCCTGCCAATTGCTTCCCCTCTGTGATCTCATTTCATCTGCACTGC
CATACGTGGAGTGAGCAAGACAGGGCTTACCATCCTGTCTACCAGATGAGGAAATGGCAGTTCTGAGAAGTCACT
GGTCTAGATCCCGCAGGTGGCACGTGACAGCTAGGGTTCAAAACGTTCTCACCAAATCCAATGCTCCTCACATAT
TAATTTTATAACCAGACAAATAAATATTAGAGACAACCAAAAAAAAAAAAAAAAAAAA

FIGURE 1004

MADTQYILPNDIGVSSLDCREAFRLLSPTERLYAYHLSRAAWYGGLAVLLQTSPEAPYIYALLSRLFRAQDPDQL
RQHALAEGLTEEEYQAFLVYAAGVYSNMGNYKSFGDTKFVPNLPKEKLERVILGSEAAQQHPEEVRGLWQTCGEL
MFSLEPRLRHLGLGKEGITTYFSGNCTMEDAKLAQDFLDSQNLSAYNTRLFKEVDGEGKPYYEVRLASVLGSEPS
LDSEVTSKLKSYEFRGSPFQVTRGDYAPILQKVVEQLEKAKAYAANSHQGQMLAQYIESFTQGSIEAHKRGSRFW
IQDKGPIVESYIGFIESYRDPFGSRGEFEGFVAVVNKAMSAKFERLVASAEQLLKELPWPPTFEKDKFLTPDFTS
LDVLTFAGSGIPAGINIPNYDDLRQTEGFKNVSLGNVLAVAYATQREKLTFLEEDDKDLYILWKGPSFDVQVGLH
ELLGHGSGKLFVQDEKGAFNFDQETVINPETGEQIQSWYRSGETWDSKFSTIASSYEECRAESVGLYLCLHPQVL
EIFGFEGADAEDVIYVNWLNMVRAGLLALEFYTPEAFNWRQAHMQARFVILRVLLEAGEGLVTITPTTGSDGRPD
ARVRLDRSKIRSVGKPALERFLRRLQVLKSTGDVAGGRALYEGYATVTDAPPECFLTLRDTVLLRKESRKLIVQP
NTRLEGSDVQLLEYEASAAGLIRSFSERFPEDGPELEEILTQLATADARFWKGPSEAPSGQA

FIGURE 1005A

CGATAACGATTTGTGTTGTGAGAGGCGCAAGCTGCGATTTCTGCTGAACTTGGAGGCATTTCTACGACTTTTCTC
TCAGCTGAGGCTTTTCCTCCGACCCTG**ATG**CTCTTCAATTCGGTGCTCCGCCAGCCCCAGCTTGGCGTCCTGAGA
AATGGATGGTCTTCACAATACCCTCTTCAATCCCTTCTGACTGGTTATCAGTGCAGTGGTAATGATGAACACACT
TCTTATGGAGAAACAGGAGTCCCAGTTCCTCCTTTTGGATGTACCTTCTCTTCTGCTCCCAATATGGAACATGTA
CTAGCAGTTGCCAATGAAGAAGGCTTTGTTCGATTGTATAACACAGAATCACAAAGTTTCAGAAAGAAGTGCTTC
AAAGAATGGATGGCTCACTGGAATGCCGTCTTTGACCTGGCCTGGGTTCCTGGTGAACTTAAACTTGTTACAGCA
GCAGGTGATCAAACAGCCAAATTTTGGGACGTAAAAGCTGGTGAGCTGATTGGAACATGCAAAGGTCATCAATGC
AGCCTCAAGTCAGTTGCCTTTTCTAAGTTTGAGAAAGCTGTATTCTGTACGGGTGGAAGAGATGGCAACATTATG
GTCTGGGATACCAGGTGCAACAAAAAAGATGGGTTTTATAGGCAAGTGAATCAAATCAGTGGAGCTCACAATACC
TCAGACAAGCAAACCCCTTCAAAACCCAAGAAGAAACAGAATTCAAAAGGACTTGCTCCTTCTGTGGATTTCCAG
CAAAGTGTTACTGTGGTCCTCTTTCAAGACGAGAATACCTTAGTCTCAGCAGGAGCTGTGGATGGGATAATCAAA
GTATGGGATTTACGTAAGAATTATACTGCTATCGACAAGAACCCATAGCATCCAAGTCTTTCCTGTACCCAGGT
AGCAGCACTCGAAAACTTGGATATTCAAGTCTGATTTTGGATTCCACTGGCTCTACTTTATTTGCTAATTGCACA
GACGATAACATCTACATGTTTAATATGACTGGGTTGAAGACTTCTCCAGTGGCTATTTTCAATGGACACCAGAAC
TCTACCTTTTATGTAAAATCCAGCCTTAGTCCAGATGACCAGTTTTTAGTCAGTGGCTCAAGTGATGAAGCTGCC
TACATATGGAAGGTCTCCACACCCTGGCAACCTCCTACTGTGCTCCTGGGTCATTCTCAAGAGGTCACGTCTGTG
TGCTGGTGTCCATCTGACTTCACAAAGATTGCTACCTGTTCTGATGACAATACACTAAAAATCTGGCGCTTGAAT
AGAGGCTTAGAGGAGAAACCAGGAGGTGATAAACTTTCCACGGTGGGTTGGGCCTCTCAGAAGAAAAAAGAGTCA
AGACCTGGCCTAGTAACAGTAACGAGTAGCCAGAGTACTCCTGCCAAAGCCCCCAGGGTAAAGTGCAATCCATCC
AATTCTTCCCCGTCATCCGCAGCTTGTGCCCCAAGCTGTGCTGGAGACCTCCCTCTTCCTTCAAATACTCCTACG
TTCTCTATTAAAACCTCTCCTGCCAAGGCCCGGTCTCCCATCAACAGAAGAGGCTCTGTCTCCTCGTCTCTCCC
AAGCCACCTTCATCTTTCAAGATGTCGATTAGAAACTGGGTGACCCGAACACCTTCCTCATCACCACCCATCACT
CCACCTGCTTCGGAGACCAAGATCATGTCTCCGAGAAAAGCCCTTATTCCTGTGAGCCAGAAGTCATCCCAAGCA
GAGGCTTGCTCTGAGTCTAGAAATAGAGTAAAGAGGAGGCTAGACTCAAGCTGTCTGGAGAGTGTGAAACAAAAG
TGTGTGAAGAGTTGTAACTGTGTGACTGAGCTTGATGGCCAAGTTGAAAATCTTCATTTGGATCTGTGCTGCCTT
GCTGGTAACCAGGAAGACCTTAGTAAGGACTCTCTAGGTCCTACCAAATCAAGCAAAATTGAAGGAGCTGGTACC
AGTATCTCAGAGCCTCCGTCTCCTATCAGTCCGTATGCTTCAGAAAGCTGTGGAACGCTACCTCTTCCTTTGAGA
CCTTGTGGAGAAGGGTCTGAAATGGTAGGCAAAGAGAATAGTTCCCCAGAGAATAAAAACTGGTTGTTGGCCATG
GCAGCCAAACGGAAGGCTGAGAATCCATCTCCACGAAGTCCGTCATCCCAGACACCCAATTCCAGGAGACAGAGC
GGAAAGACATTGCCAAGCCCGGTCACCATCACGCCCAGCTCCATGAGGAAAATCTGCACATACTTCCATAGAAAG
TCCCAGGAGGACTTCTGTGGTCCTGAACACTCAACAGAATTA**TAG**ATTCTAATCTGAGTGAGTTACTGAGCTTTG
GTCCACTAAAACAAGCTGAGCTTTGGTCCACTAAAACAAGATGAAAAATACAAGAGTGACTCTATAACTCTGGTC
TTTAAGAAAGCTGCCTTTTCATTTTTAGACAAAATCTTTTCAACGCTGAAATGTACCTAATCTGGTTCTACTACC
ATAATGTATATGCAGCTTCCCGAGGATGAATGCTGTGTTTAAATTTCATAAAGTAAATTTGTCACTCTAGCATTT
TGAATGAATAGTCTTCACTTTTTAAATTATTCATCTTCTCTATAATAATGACATCCCAGTTCATGGAGGCAAAAA
ACAAGTTTCTTGTTATCCTGAAACTTTCTATGCTCAGTGGAAAGTATCTGCCAGCCACAGCATGAGGCCTGTGAA
GGCTGACTGAGAAATCCTCTGCTGAAGACCCCTGGTTCTGTTCTGCCTCCAACATGTATAATTTTATTTGAAATA
CATAATCTTTTCACTATGCTTTTGTGGGGTTTTTTTTAAGTATGTGTAAAAATGTGATGCTCAGATAAGTACATT
TATATCAGTTCAGTGTTAAAATGCAGTCTCTTGAGTTAAAGTCATCTTTATTTTAAATGCAGTGATAAATGTCAA
CTCTTCGGAGAAACTAGGAGAACAACAACAGAAAGCTGTGTTTGTCTTTTTTCTCTCAAATATATCTCCCGTATG
AGATTTCAGGTCCCCATGTTTTCACCAAGCAATCTGCTATGTCAGCCAACCCAACATCACTTTCTACAGGAGGTT
ATGATTTTTGCCATTTACTAGAGGAAGATGTTTTATGAAATCAATTTGGGGTTTGAATTCAGGTGCAGTCATCAG
TTCTTTAGGGGCTGCAATGTTTTAAAAAAAATAAGTCATCAGATTTTAAGAAAAAAGTGATGATTTCTTATTGAT
ATTTTTGTAACAGAATATAGCTCTTAACTGAAAATCCAGAACCAGAAACATAAATCTTGAGTTTCTTTTCATGTA
CATAAAAAGCAATAGCCTTTTAGTATAGATAGCCCTGAGCCAAAAAGTAATAGAATTTTCTCTAGATATTTAATA
CAGAGAGTGTATAGACTGACTCTAAGTTAATAATGTGCAAAATATCTTAAACATCCCTCCCCTTATTCAACAATT
ATGTATCAGTGATCTTGAACCATTGTTTTATATTTTTCACCTTTGTAACCTCATGGAAAGAGGCTTTACATACTT
TCTATGTACTATTTACTTAGAAGGGAGCCCCCTTCCAGTCATGAAACTTCATTTGTTTTATCCATATCCCTGAGG

FIGURE 1005B

ACTGTGTAGACTTTATGTCAGTTCTGTGTAGACTTTATGTCAGTTTTTGTCATTATTTGAAAATCTATTCTGACA
ACTTTTTAATTCCTTTGATCTTATAAGTTAAAGCTGTAACAACTGAAATTGCATGGATCAAGTAAGCATAGTTTT
ATCCAGGGAGAAAAATAAAAGGAAGCCATAGAATTGCTCTGGTCAAAACCAAGCACACCATAGCCTTAACTGAAT
ATTTAGGAAATCTGCCTAATCTGCTTATATTTGGTGTTTGTTTTTTGACTGTTGGGCTTTGGGAAGATGTTATTT
ATGACCAATATCTGCCAGTAACGCTGTTTATCTCACTTGCTTTGAAAGCCAATGGGGGAAAAAAATCCATGAAAA
AAAAAAGATTGATAAAGTAGATGATTTTGTTTGTATCCCTACCCATCTCCTGGCAGCCCTACTGAGTGAAATTGG
GATACATTTGGCTGTCAGAAATTATACCGAGTCTACTGGGTATAACATGTCTCACTTGGAAAGCTAGTACTTTTA
AATGGGTGCCAAAGGTCAACTGTAATGAGATAATTATCCCTGCCTGTGTCCATGTCAGACTTTGAGCTGATCCTG
AATAATAAAGCCTTTTACCTT

FIGURE 1006

MLFNSVLRQPQLGVLRNGWSSQYPLQSLLTGYQCSGNDEHTSYGETGVPVPPFGCTFSSAPNMEHVLAVANEEGF
VRLYNTESQSFRKKCFKEWMAHWNAVFDLAWVPGELKLVTAAGDQTAKFWDVKAGELIGTCKGHQCSLKSVAFSK
FEKAVFCTGGRDGNIMVWDTRCNKKDGFYRQVNQISGAHNTSDKQTPSKPKKKQNSKGLAPSVDFQQSVTVVLFQ
DENTLVSAGAVDGIIKVWDLRKNYTAYRQEPIASKSFLYPGSSTRKLGYSSLILDSTGSTLFANCTDDNIYMFNM
TGLKTSPVAIFNGHQNSTFYVKSSLSPDDQFLVSGSSDEAAYIWKVSTPWQPPTVLLGHSQEVTSVCWCPSDFTK
IATCSDDNTLKIWRLNRGLEEKPGGDKLSTVGWASQKKKESRPGLVTVTSSQSTPAKAPRVKCNPSNSSPSSAAC
APSCAGDLPLPSNTPTFSIKTSPAKARSPINRRGSVSSVSPKPPSSFKMSIRNWVTRTPSSSPPITPPASETKIM
SPRKALIPVSQKSSQAEACSESRNRVKRRLDSSCLESVKQKCVKSCNCVTELDGQVENLHLDLCCLAGNQEDLSK
DSLGPTKSSKIEGAGTSISEPPSPISPYASESCGTLPLPLRPCGEGSEMVGKENSSPENKNWLLAMAAKRKAENP
SPRSPSSQTPNSRRQSGKTLPSPVTITPSSMRKICTYFHRKSQEDFCGPEHSTEL

FIGURE 1007

GCACGAGGGAAGAGGGTGATCCGACCCGGGGAAGGTCGCTGGGCAGGGCGAGTTGGGAAAGCGGCAGCCCCCGCC
GCCCCCGCAGCCCCTTCTCCTCCTTTCTCCCACGTCCTATCTGCCTCTCGCTGGAGGCCAGGCCGTGCAGCATCG
AAGACAGGAGGAACTGGAGCCTCATTGGCCGGCCCGGGGCGCCGGCCTCGGGCTTAAATAGGAGCTCCGGGCTCT
GGCTGGGACCCGACCGCTGCCGGCCGCGCTCCCGCTGCTCCTGCCGGGTG**ATG**GAAAACCCCAGCCCGGCCGCCG
CCCTGGGCAAGGCCCTCTGCGCTCTCCTCCTGGCCACTCTCGGCGCCGCCGGCCAGCCTCTTGGGGGAGAGTCCA
TCTGTTCCGCCAGAGCCCCGGCCAAATACAGCATCACCTTCACGGGCAAGTGGAGCCAGACGGCCTTCCCCAAGC
AGTACCCCCTGTTCCGCCCCCCTGCGCAGTGGTCTTCGCTGCTGGGGGCCGCGCATAGCTCCGACTACAGCATGT
GGAGGAAGAACCAGTACGTCAGTAACGGGCTGCGCGACTTTGCGGAGCGCGGCGAGGCCTGGGCGCTGATGAAGG
AGATCGAGGCGGCGGGGGAGGCGCTGCAGAGCGTGCACGCGGTGTTTTCGGCGCCCGCCGTCCCCAGCGGCACCG
GGCAGACGTCGGCGGAGCTGGAGGTGCAGCGCAGGCACTCGCTGGTCTCGTTTGTGGTGCGCATCGTGCCCAGCC
CCGACTGGTTCGTGGGCGTGGACAGCCTGGACCTGTGCGACGGGGACCGTTGGCGGGAACAGGCGGCGCTGGACC
TGTACCCCTACGACGCCGGGACGGACAGCGGCTTCACCTTCTCCTCCCCCAACTTCGCCACCATCCCGCAGGACA
CGGTGACCGAGATAACGTCCTCCTCTCCCAGCCACCCGGCCAACTCCTTCTACTACCCGCGGCTGAAGGCCCTGC
CTCCCATCGCCAGGGTGACACTGGTGCGGCTGCGACAGAGCCCCAGGGCCTTCATCCCTCCCGCCCCAGTCCTGC
CCAGCAGGGACAATGAGATTGTAGACAGCGCCTCAGTTCCAGAAACGCCGCTGGACTGCGAGGTCTCCCTGTGGT
CGTCCTGGGGACTGTGCGGAGGCCACTGTGGGAGGCTCGGGACCAAGAGCAGGACTCGCTACGTCCGGGTCCAGC
CCGCCAACAACGGGAGCCCCTGCCCCGAGCTCGAAGAAGAGGCTGAGTGCGTCCCTGATAACTGCGTC**TAA**GACC
AGAGCCCCGCAGCCCCTGGGGCCCCCGGAGCCATGGGGTGTCGGGGGCTCCTGTGCAGGCTCATGCTGCAGGCGG
CCGAGGCACAGGGGGTTTCGCGCTGCTCCTGACCGCGGTGAGGCCGCGCCGACCATCTCTGCACTGAAGGGCCCT
CTGGTGGCCGGCACGGGCATTGGGAAACAGCCTCCTCCTTTCCCAACCTTGCTTCTTAGGGGCCCCGTGTCCCG
TCTGCTCTCAGCCTCCTCCTCCTGCAGGATAAAGTCATCCCCAAGGCTCCAGCTACTCTAAATTATGGTCTCCTT
ATAAGTTATTGCTGCTCCAGGAGATTGTCCTTCATCGTCCAGGGGCCTGGCTCCCACGTGGTTGCAGATACCTCA
GACCTGGTGCTCTAGGCTGTGCTGAGCCCACTCTCCCGAGGGCGCATCCAAGCGGGGGCCACTTGAGAAGTGAAT
AAATGGGGCGGTTTCGGAAGCGTCAGTGTTTCCATGTTATGGATCTCTCTGCGTTTGAATAAAGACTATCTCTGT
TGCTCAC

FIGURE 1008

MENPSPAAALGKALCALLLATLGAAGQPLGGESICSARAPAKYSITFTGKWSQTAFPKQYPLFRPPAQWSSLLGA
AHSSDYSMWRKNQYVSNGLRDFAERGEAWALMKEIEAAGEALQSVHAVFSAPAVPSGTGQTSAELEVQRRHSLVS
FVVRIVPSPDWFVGVDSLDLCDGDRWREQAALDLYPYDAGTDSGFTFSSPNFATIPQDTVTEITSSSPSHPANSF
YYPRLKALPPIARVTLVRLRQSPRAFIPPAPVLPSRDNEIVDSASVPETPLDCEVSLWSSWGLCGGHCGRLGTKS
RTRYVRVQPANNGSPCPELEEEAECVPDNCV

FIGURE 1009

GCTGGAGCCGGGCCGGGGCG**ATG**TGGAGCGCGGGCCGCGGCGGGGCTGCCTGGCCGGTGCTGTTGGGGCTGCTGC
TGGCGCTGTTAGTGCCGGGCGGTGGTGCCGCCAAGACCGGTGCGGAGCTCGTGACCTGCGGGTCGGTGCTGAAGC
TGCTCAATACGCACCACCGCGTGCGGCTGCACTCGCACGACATCAAATACGGATCCGGCAGCGGCCAGCAATCGG
TGACCGGCGTAGAGGCGTCGGACGACGCGAATAGCTACTGGCGGATCCGCGGCGGCTCGGAGGGCGGGTGCCCGT
GCGGGTCCCCGGTGCGCTGCGGGCAGGCGGTGAGGCTCACGCATGTGCTTACGGGCAAGAACCTGCACACGCACC
ACTTCCCGTCGCCGCTGTCCAACAACCAGGAGGTGAGTGCCTTTGGGGAAGACGGCGAGGGCGACGACCTGGACC
TATGGACAGTGCGCTGCTCTGGACAGCACTGGGAGCGTGAGGCTGCTGTGCGCTTACAGCATGTGGGCACCTCTG
TGTTCCTGTCAGTCACGGGTGAGCAGTATGGAAGCCCCATCCGTGGGCAGCATGAGGTCCACGGCATGCCCAGTG
CCAACACGCACAATACGTGGAAGGCCATGGAAGGCATCTTCATCAAGCCTAGTGTGGAGCCCTCTGCAGGTCACG
ATGAACTC**TGA**GTGTGTGGATGGATGGGTGGATGGAGGGTGGCAGGTGGGGCGTCTGCAGGGCCACTCTTGGCAG
AGACTTTGGGTTTGTAGGGGTCCTCAAGTGCCTTTGTGATTAAAGAATGTTGGTCTATGA

FIGURE 1010

MWSAGRGGAAWPVLLGLLLALLVPGGGAAKTGAELVTCGSVLKLLNTHHRVRLHSHDIKYGSGSGQQSVTGVEAS
DDANSYWRIRGGSEGGCPCGSPVRCGQAVRLTHVLTGKNLHTHHFPSPLSNNQEVSAFGEDGEGDDLDLWTVRCS
GQHWEREAAVRLQHVGTSVFLSVTGEQYGSPIRGQHEVHGMPSANTHNTWKAMEGIFIKPSVEPSAGHDEL

FIGURE 1011

ACCTCCGGAAACCGTAGATTCCGGGCGGTCGGAGCCGCCGGGAGCTGTAGTTCTCCCGCGGCTCAGAGAAGTAGG
CAGAGAGCGGACCTGGCGGCCGGGCAGC**ATG**GCGGGGCTGGAGCTCTTGTCGGACCAGGGCTACCGGGTGGACGG
GCGGCGCGCCGGGGAGCTGCGCAAGATCCAGGCGCGGATGGGCGTGTTCGCGCAGGCTGACGGCTCGGCCTACAT
TGAGCAGGGCAACACCAAGGCACTGGCTGTGGTCTACGGCCCGCACGAGATCCGGGGCTCCCGGGCTCGAGCCCT
GCCGGACAGGGCCCTAGTGAACTGTCAATATAGTTCAGCGACCTTCAGCACAGGTGAGCGCAAGCGACGGCCACA
TGGGGACCGTAAGTCCTGTGAGATGGGCCTGCAGCTCCGCCAGACTTTCGAAGCAGCCATCCTCACACAGCTGCA
CCCACGCTCCCAGATTGATATCTATGTGCAGGTGCTACAGGCAGATGGTGGGACCTATGCAGCTTGTGTGAATGC
AGCCACGCTGGCAGTGCTGGATGCCGGGATACCCATGAGAGACTTTGTGTGTGCGTGCTCAGCTGGCTTCGTGGA
CGGCACAGCCCTGGCGGACCTCAGCCATGTGGAGGAAGCAGCTGGTGGCCCCCAGCTGGCCCTGGCCCTGCTGCC
AGCCTCAGGACAGATTGCGCTGCTTGAGATGGATGCCCGGCTGCACGAGGACCACCTGGAGCGGGTGTTGGAGGC
TGCTGCCCAGGCTGCCCGAGATGTGCACACCCTCTTAGATCGAGTGGTCCGGCAGCATGTGCGTGAGGCCTCTAT
CTTGCTGGGGGAC**TGA**CCACCCAGCCACCCATGTCCAGAATAAACCCTCCTTGCCCACACXAAAAAAAAAA

FIGURE 1012

MAGLELLSDQGYRVDGRRAGELRKIQARMGVFAQADGSAYIEQGNTKALAVVYGPHEIRGSRARALPDRALVNCQ
YSSATFSTGERKRRPHGDRKSCEMGLQLRQTFEAAILTQLHPRSQIDIYVQVLQADGGTYAACVNAATLAVLDAG
IPMRDFVCACSAGFVDGTALADLSHVEEAAGGPQLALALLPASGQIALLEMDARLHEDHLERVLEAAAQAARDVH
TLLDRVVRQHVREASILLGD

FIGURE 1013

CCGCTTCCCCGTCTTGTACACCCCTAACTCCTGAGGCTCCTCCGAATCACGCGAGTGGAAGCGGAGAAGCTCAAG
TGGCCGCC**ATG**TCAGAGGCTTATTTCCGAGTGGAGTCGGGTGCGCTGGGGCCTGAGGAGAACTTTCTTTCTTTGG
ACGACATCCTGATGTCCCACGAGAAGCTGCCGGTGCGCACGGAGACCGCCATGCCTCGCCTTGGCGCTTTCTTCC
TGGAGCGGAGCGCAGGCGCCGAGACTGACAACGCGGTCCCACAGGGTTCCAAGCTTGAACTACCCTTGTGGCTGG
CAAAAGGACTTTTTGACAACAAGCGACGGATCCTTTCTGTGGAACTCCCCAAGATCTACCAAGAGGGTTGGAGGA
CTGTGTTCAGTGCAGATCCCAATGTGGTGGACCTCCACAAAATGGGGCCCCATTTCTACGGGTTTGGCTCCCAGC
TCCTGCATTTTGACAGTCCCGAGAATGCAGACATTTCCCAGTCTCTGCTGCAGACTTTTATCGGACGTTTTCGCC
GCATCATGGACTCCTCACAGAATGCTTACAACGAAGACACTTCAGCCCTGGTAGCCAGGCTAGACGAGATGGAGA
GGGGCTTATTTCAAACAGGGCAGAAAGGACTGAATGACTTTCAGTGTTGGGAGAAGGGGCAGGCTTCTCAGATCA
CAGCTTCCAACCTCGTTCAGAATTACAAGAAGAGAAAATTCACTGATATGGAAGAC**TGA**AAGCCGGAAGAACACA
GAATGGCTCCTCACAGACGTATCCCTCCGTGTGTCCTTGATAGGAGCTGGTTGACCTTGTACAGAACCAGAATCC
TGTCCCATTTCATGGCTTATTTCCTGTGGCCATAGAGAATTATAGGGAACTGGACATGCTGGAGGATGTGGGTGT
CCCTGGCTCTGTGAGTCTTCCAGGACCGTCCCACCCTGCTGACCCACAGCCCAGGCCCTTTAACCCAAGAACCCA
TGGCCAAGGAGAAATCAAAGTCCTTCCTAAATAAGAATCACTGCCATATAATATATCACAGTAGAGTTGCAACTG
AGATTCCTTGTGTCTGGGAGTTTGGACAGCTTCAGATGTACAGTTTCACTAGCCACAAAGCACAGGTACAAACTG
GGTCATCGCCTGTTCACAAAATGCTCTCTTGATCTTATTTGCCTCATCTTCCTCATGGTTGTACAGAGGATAGCA
CCCCACCATGCCAGCCTGACTTGGAGATATCTCCTGCTGCCTGCCTGCAGGGAGTTACCCCAGTTTCCAAAAACA
GTCGCCCAGATAAAGGAGGAAAAGGGAAAGGCAGACGAATGGCATGGCTTTTACTAAAGAAAAGATGTTGGCCTC
ATACTCTATACTCAGGGCTTAATGAACTGGAATCTGCATAACTCAGCAGTCAACCCAGAAGGGAAATGGTTAAAC
TGAGCTTGTTATTGCCTCGGAGAGCCTAAGAGCACCCGCACACTTAATTCTACTCCCTGTCTAGAAAAGCTGTCA
GGGAGTCGTTTGGAATTGCAATGTAGTTATTAAGGGCTGTTAACCAGCCTGCATTACATCTGGAAGTCAGGACTT
GGGTGCTGACTATGAAGGGCCCTGTTTTCAAAATCTAACATTGCAAGTGTAAATGGGCAAGAAGCCTCCGTTGTG
CTTTTTTTTTCCTCTTCAGTAACTTTTGCAACATTATTGCATAGAAGATCCCTGACCATTTACTAGGAACCTGGT
TAAGCAAGCACTAATCTCTTTTCCTGGAGATCAAGGATGCAACCTCAGGTTGAGAAAGAAACAGGGTTCCCTGGG
CCCATTAGACTGTTTGCAGGGCATCACTGCTTCCCCCTGACACCTCACAACTAGCAAAAATTGTCTTTGTCTTTG
GAAATTATAGAGGGATTTGGGTATCCAGATTGTGCAGATGCAAACTTAGGCTGTCTTGATGCAAACTTAGAACCA
CAGAAATGCTTTTAAAATGCCTGTTTTAAGATGGAATTGTTGTTTTATAATTTGATTTTAGTGCTAAATAAATG
ATTGGCTTTGTACATGAATATGTTCTGTACAAGTGCTCTTTCACTAGTACTACAGATAATCAAAGCTATCAGAAT
TGTGTCTTTGATCATATTTGACGGTAATACACAAATAAATCCATGTTTTAGCAAAAAAAAAAAAAAAAAAAAAAAA
A

FIGURE 1014

MSEAYFRVESGALGPEENFLSLDDILMSHEKLPVRTETAMPRLGAFFLERSAGAETDNAVPQGSKLELPLWLAKG
LFDNKRRILSVELPKIYQEGWRTVFSADPNVVDLHKMGPHFYGFGSQLLHFDSPENADISQSLLQTFIGRFRRIM
DSSQNAYNEDTSALVARLDEMERGLFQTGQKGLNDFQCWEKGQASQITASNLVQNYKKRKFTDMED

FIGURE 1015

GGCACGAGGGCACCGCAGGAGCAACGGTTGGTCCTGCGGCTGTG**ATG**TCGGTGTTGAGGCCCCTGGACAAGCTGC
CCGGCCTGAACACGGCCACCATCTTGCTGGTGGGCACGGAGGATGCTCTTCTGCAGCAGCTGGCGGACTCGATGC
TCAAAGAGGACTGCGCCTCCGAGCTGAAGGTCCACTTGGCAAAGTCCCTCCCTTTGCCCTCCAGTGTGAATCGGC
CCCGAATTGACCTGATCGTGTTTGTGGTTAATCTTCACAGCAAATACAGTCTCCAGAACACAGAGGAGTCCCTGC
GCCATGTGGATGCCAGCTTCTTCTTGGGGAAGGTGTGTTTCCTCGCCACAGGTGCTGGGCGGGAGAGCCACTGCA
GCATTCACCGGCACACCGTGGTGAAGCTGGCCCACACCTATCAAAGCCCCCTGCTCTACTGTGACCTGGAGGTGG
AAGGCTTTAGGGCCACCATGGCGCAGCGCCTGGTGCGCGTGCTGCAGATCTGTGCTGGCCACGTGCCCGGTGTCT
CAGCTCTGAACCTGCTGTCCCTGCTGAGAAGCTCTGAGGGCCCCTCCCTGGAGGACCTG**TGA**GGGTGGCTGGCCC
CTGGGCTGCCCCTTCTCATGGCTTCGTGCTGACTCCATAAACATTCTCTGTTGAGGATGTCCAGTCAGGGCTTGA
CAGGCCCAGGCTCAGCCCGCCGTGGCTGGGAAGGTTCCCTGCAGTGCCAGTGCTGCAGCAGGGAGAGCTGGGCAG
AAGCAGCGAGGGGGCCCAGCTGGCGAGACTGTAGCCCCCTCCCACTCCCACACTCACTCTTGCAGAGCCTGTGTC
TTTAAGCAGCTGGCGTGTTACATCTCCATTTAAGGTTTCCTTTGAACAAAAGGTCTGTGGCTAAAAAAAGTTTAA
AAATCAAAAAAAAAAAAAAAAAA

FIGURE 1016

MSVLRPLDKLPGLNTATILLVGTEDALLQQLADSMLKEDCASELKVHLAKSLPLPSSVNRPRIDLIVFVVNLHSK
YSLQNTEESLRHVDASFFLGKVCFLATGAGRESHCSIHRHTVVKLAHTYQSPLLYCDLEVEGFRATMAQRLVRVL
QICAGHVPGVSALNLLSLLRSSEGPSLEDL

FIGURE 1017

GGGAGTAGGAGGTGTGACCGGAGGGCGAAATTGGGGCTTCCTCTGCTCTGGTGACCCAGAACCGTCAACTGAAAT
GACCCTGTCTGTGTAGTACTCCGGCAGGATGGGCCTCGGAGCGTAAAGGCGGCAAAAACAAAAATATTAAAAAAA
AGGAGAGAGGGACAAAAAAAAGAAAACCCGAAAGTTTCAGCTGCATTGCTGCGGAACGTTTTTTAGCCAGAAGGC
GAAAGAAGAAATCGGAAGTGACGTCGCGGCCAAAACAAGCCCGGGCTTGGAGGCCTGTACTGAAGCTGGCCTCAG
ATGGGAAGGCCCGACTCGCTGTCTGCTGTCGTCGGTGGTCGCGAGACCTTGCACTCTCACCGGGTCGGCCTCCAG
CCCCTGTGCCCGGGATCCGCTCGCCGCGGATGAGCGAGAGTTTCTTCCTGGGACTTTTCGGGCACAGCTGGCCGG
TGGCGACAGAACGGACTTTCTTTCCTGCAAGAGTCTCCCCTCCAGCGGGAGACAGCGGGCTCCTGTCTCGGGACG
CTGGGACACCTGTCGCCTATTTTTAAATATCCAGATTCCAAGAACACACTGGATACTGCTCTTACAAAACCAAGA
GGAAATCATGAAGAAATGTTTTAGTTATTGAAACTACAGTTGAAATC**ATG**GATACATCAACAAATCTGGATATTG
GAGCCCAGCTTATCGTGGAAGAGTGTCCCAGCACTTATAGCCTAACTGGCATGCCAGACATTAAAATAGAACATC
CACTGGACCCAAATTCAGAAGAAGGGTCAGCTCAGGGTGTTGCCATGGGAATGAAATTCATATTGCCTAACCGAT
TTGATATGAATGTGTGTTCTCGATTTGTGAAGTCCTTAAATGAAGAAGATAGTAAAAATATTCAAGATCAGGTTA
ACTCTGACCTGGAGGTGGCATCTGTCCTATTTAAAGCTGAATGCAATATCCATACATCTCCTTCTCCGGGAATTC
AAGTAAGGCATGTCTACACCCCTCTACAACAAAGCATTTCTCACCCATAAAACAGTCAACCACTTTAACCAACA
AACACAGAGGAAATGAGGTCTCTACCACACCTCTGTTAGCAAATTCTTTGTCTGTTCACCAGTTGGCTGCTCAGG
GAGAGATGCTCTATCTGGCTACTCGTATCGAACAAGAAAATGTTATCAATCACACGGATGAAGAAGGATTTACTC
CTCTGATGTGGGCTGCAGCACACGGGCAAATAGCTGTGGTAGAGTTCCTACTTCAGAATGGTGCTGATCCCCAAC
TTTTAGGAAAAGGTCGAGAAAGTGCACTGTCGTTGGCCTGTAGTAAAGGCTACACAGATATTGTCAAAATGCTGC
TTGATTGTGGAGTTGATGTAAATGAATATGATTGGAATGGAGGAACACCTCTGCTTTATGCTGTACATGGAAATC
ATGTGAAATGTGTAAAGATGCTCTTAGAAAGTGGGGCTGATCCAACAATTGAAACTGACTCTGGATATAATTCTA
TGGATCTAGCTGTAGCCCTAGGCTATAGAAGTGTTCAACAGGTTATTGAGTCACATTTGTTGAAGCTGCTTCAAA
ATATCAAGGAG**TAG**ACACAGTCATCAGAAAATGTCTGCCCTTTTGTTTACTTCTTGGTCCTTATAAATGATAGTT
TTGTTTACTTATAAATTTTTACCTCAGTTGCAATATTTACTGGTTTTTAGTAGGTTTTAATAAATATTTCTCTGA
GTAATTCACTGGTTTATAATAAATGTAATACTCTTTTTATAACTATGTTTTACTGTATATTTAAAATTATAAATT
AATGTTTTCGTGGCATGTAAATTTTTATGGTACAGATAGTTATCATCAGTCTTTGTATCAAGTGCTGTAATTTGA
CATTTTCAGAAATTATTCTACCCTAGTCATCTTCACTCGTGTATTAAGTCATTCACTTTATATAGGGTTTGCTAT
AAATCCCTAGAAAAAAATTGTTCTTATTGTTGAATTAAAAAGTGCACAGTGTGATTGTTTACAAAATGATATTAT
AAATAAATAAATACTTCTTCTG

FIGURE 1018

MDTSTNLDIGAQLIVEECPSTYSLTGMPDIKIEHPLDPNSEEGSAQGVAMGMKFILPNRFDMNVCSRFVKSLNEE
DSKNIQDQVNSDLEVASVLFKAECNIHTSPSPGIQVRHVYTPSTTKHFSPIKQSTTLTNKHRGNEVSTTPLLANS
LSVHQLAAQGEMLYLATRIEQENVINHTDEEGFTPLMWAAAHGQIAVVEFLLQNGADPQLLGKGRESALSLACSK
GYTDIVKMLLDCGVDVNEYDWNGGTPLLYAVHGNHVKCVKMLLESGADPTIETDSGYNSMDLAVALGYRSVQQVI
ESHLLKLLQNIKE

FIGURE 1019A

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ATCCTTGCCGCCCGCCCCGGCCCAGCCGCGTCCCGGAGCCGTCGGGCATGGAGCCGTGGAAGCAGTGCGCGCAGT
GGCTCATCCATTGCAAGGTGCTGCCCACCAACCACCGGGTGACCTCGGCTCAGGTGTTCGACCTTGCGC
AGACCCTCCGCGATGGAGTCCTGCTCTGCCAGCTGCTTAACAACCTCCGGGCGCACTCCATCAACCTGAAGGAGA
TCAACCTGAGGCCGCAGATGTCCCAGTTTCTCTGTTTGAAGAACATAAGGACATTTCTCACGGCCTGTTGTGAGA
CGTTTGGAATGAGGAAAAGTGAACTTTTCGAGGCATTTGACTTGTTTGATGTTCGTGACTTTGGAAAGGTTATAG
AAACATTATCACGACTTTCTCGAACACCTATAGCATTGGCCACAGGAATCAGGCCCTTCCCAACAGAAGAAAGCA
TTAATGATGAAGACATCTACAAAGGCCTTCCTGATTTAATAGATGAAACCCTTGTGGAAGATGAAGAAGATCTCT
ATGACTGTGTTTATGGGGAAGATGAAGGTGGAGAAGTCTATGAGGACTTAATGAAGGCAGAGGAAGCACATCAGC
CCAAATGTCCAGAAAATGATATACGAAGTTGTTGTCTAGCAGAAATTAAGCAGACAGAAGAAAAATATACAGAAA
CTTTGGAGTCAATAGAAAAGTATTTCATGGCACCACTAAAAAGATTTCTGACAGCAGCAGAATTTGATTCAGTAT
TCATCAACATTCCTGAACTTGTAAAACTTCATCGGAACCTAATGCAAGAGATTCATGATTCCATTGTAAATAAAA
ATGACCAGAACTTGTACCAAGTTTTTATTAACTACAAGGAAAGATTGGTTATTTACGGGCAGTACTGCAGTGGAG
TGGAGTCAGCCATCTCTAGTTTAGACTACATTTCTAAGTCAAAAGAAGATGTCAAACTGAAATTAGAGGAATGTT
CCAAAAGAGCAAATAATGGGAAATTTACTCTTCGAGACTTGCTTGTGGTTCCTATGCAACGTGTTTTAAAGTACC
ACCTTCTCCTCCAGGAACTGGTCAAACATACCACTGATCCGACTGAGAAGGCAAATCTGAAACTGGCTCTTGATG
CCATGAAGGACTTGGCACAATATGTGAATGAAGTGAAAAGAGATAATGAGACCCTTCGTGAAATTAAACAGTTTC
AGCTATCTATAGAGAATTTGAACCAACCAGTTTTGCTTTTTGGACGACCTCAGGGAGATGGTGAAATTCGAATAA
CCACTCTAGACAAGCATACCAAACAAGAAAGGCATATCTTCTTATTTGATTTGGCAGTGATCGTATGTAAGAGAA
AAGGTGATAACTATGAAATGAAGGAAATAATAGATCTTCAGCAGTACAAGATAGCCAATAATCCTACAACCGATA
AAGAAAACAAAAAGTGGTCTTATGGCTTCTACCTCATCCATACCCAAGGACAAAATGGGTTAGAATTTTATTGCA
AAACAAAAGATTTAAAGAAGAAATGGCTAGAACAGTTTGAAATGGCTTTGTCTAACATAAGACCAGACTATGCAG
ACTCCAATTTCCACGACTTCAAGATGCATACCTTCACTCGAGTCACATCCTGCAAAGTCTGCCAGATGCTCCTGA
GGGGAACATTTTATCAAGGCTATTTATGTTTTAAGTGTGGAGCGAGAGCACACAAAGAATGTTTGGGAAGAGTAG
ACAATTGTGGCAGAGTTAATTCTGGTGAACAAGGGACACTCAAACTACCAGAGAAACGGACCAATGGACTGCGAA
GAACTCCTAAACAGGTGGATCCAGGTTTACCAAAGATGCAGGTCATTAGGAACTATTCTGGAACACCACCCCCAG
CTCTGCATGAAGGACCCCCTTTACAGCTCCAGGCCGGGGATACCGTTGAACTTCTGAAAGGAGATGCACACAGTC
TGTTTTGGCAGGGCAGAAATTTAGCATCTGGAGAGGTTGGATTTTTTCCAAGTGATGCAGTCAAGCCTTGCCCAT
GTGTGCCCAAACCAGTAGATTATTCTTGCCAACCCTGGTATGCTGGAGCAATGGAAAGATTGCAAGCAGAGACCG
AACTTATTAATAGGGTAAATAGTACTTACCTTGTGAGGCACAGGACCAAAGAGTCAGGAGAATATGCAATTAGCA
TTAAGTACAATAATGAAGCAAAGCACATCAAGATTTTAACAAGAGATGGCTTTTTTCACATTGCAGAAAATAGAA
AATTTAAAAGTTTAATGGAACTTGTGGAGTACTACAAGCATCATTCTCTCAAGGAAGGGTTCAGAACCTTAGATA
CAACTCTGCAGTTTCCATACAAGGAGCCAGAACATTCAGCTGGACAGAGGGGTAATAGAGCAGGCAACAGCTTGT
TAAGTCCAAAAGTGCTGGGCATTGCCATCGCTCGGTATGACTTCTGTGCAAGAGATATGAGAGAGTTGTCCTTGT
TGAAAGGAGATGTGGTGAAGATTTACAAAGATGAGTGCAAATGGCTGGTGGAGAGGAGAAGTAAATGGCAGGG
TGGGCTGGTTTCCATCCACATATGTGGAAGAGGATGAATAAATTCAAATCCCGTGTTGCACCCTGCACCAAAAAT
TTCAGAGAAGGGATAAATAGAAGCCTGCACAGCATCGTGAATTAACTGAAGTGTTTAAAAAGCTGCATTTCTGGC
TGTTCAACATCCTCCCTCCTTAGCCCCTCCTAAGTCTTAATGCTGAGATTTCTAAAGATGCTGGTACTGACAGAT
TAATGGCTTGCCTAGAGCTGTGCAAGAAACAGCCTGCCAGTCTGTCATTGTCAGGGACCAGGGCAAAACCAAGAG
CTGTTCTTCCCAGAAGAGCCCTGCAAACACATTGGTTCGTGCTTCCCTTTACTTCTTCTGGTCAGATACCATGAA
TGCCAGTCATCAGTAAATCTTAATACACTTTTGCTTTATTCTCACATGCCATTCACCAGATTATTTGATGGTACA
AAGAAGCAGAAGTGTAATTTTCCTTTTCCCAGCATGACGAAAAATTGGAGTTCTGCCATTTGAGCAGCTTACTGG
AAAGATCCAGCCTTACTTGTCTTAAATTGTCCAACAAGGTGACTCATTGCCCGGCAAACACTTTTACCCTCAGAT
GTTACTCATGATATTATAAAAATATGAGGCCAGTGCTCAGGTTTGCATCATAAGTGAGCTATCCCTGAAGGGTTTT
AATTACTTATTTGGTGTCCTGATTATATTTGCAAACTTCTTTATAAAAGGTGAAAAAGCACACAAAGAGAGGG
TGTCTTCATATTAAACCTTCACAACCTTCATGATTTCATAGGATTATTTTGGAAATATAGCACTTGACTTTATGA
AAGGATCTGGGCTAGGTATATTAGGGGTAGTTGCCAATAACCTGAAGAAGCTGGCATTGTTTACAGAAACAGATC
AAGGGCTATAATTTATGTCATTTTATAGCAGCAGTATCTATTAATACATGCCTTTTCCTCCCATCCACCTCCCCC
GCACACACACAAAGATGACCTGGGACATGATTTTTTTATTCCCACATTTTCTTGGAGCACAAACAACTTTGTTGA
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FIGURE 1019B

GGATTTTGGAAGGAAAGCACAACTGGGTCCTTTATTCATTTCTGGGACAGAAAGAGGGTCAGTGGACTTTTGTGG
GCCTCCAGCTTCTCTCAGAGTCTCCCCCTCTGCAGCCCATCCTGGGAGTGTATTAACTGGAGGGAAGATGGGTCT
TGCAGTACATTTGTTTTGCCCAGCCATCACTCTTTTTTGTGAGGAGCCTAAATACATTCTTCCTGGGGTCCAGAG
TCCCCATTCAAGGCAGTCAAGTTAAGACACTAACTTGGCCCTTTCCTGATGGAAATATTTCCTCCATAGCAGAAG
TTGTGTTCTGACAAGACTGAGAGAGTTACATGTTGGGAAAAAAAAGAAGCATTAACTTAGTAGAACTGAACCAGG
AGCATTAAGTTCTGAAATTTTGAATCATCTCTGAAATGAAGCAGGTGTAGCCTGCCCTCTCATCAATCCGTCTGG
GTGCCAGAACTCAAGGTTCAGTGGACACATCCCCCTGTTAGAGACCCTCATGGGCTAGGACTTTTCATCTAGGAT
AGATTCAAGACCTTTACCTCAGAATTATGTAAACTGTGATTGTGTTTTAGAAAAATTATTATTTGCTAAAACCAT
TTAAGTCTTTGTATATGTGTAAATGATCACAAAAATGTATTTTATAAAATGTTCTGTACAATAAAGTTACACCTC
AAAGTGTACTCTTGGAATGGATTCTTTCCTGTAAAGTCTTATCTGCGACTCTGTCTCGGGAATGTTTTGTCTGTT
GCCGTCAGCCGAACTTTGTTATGGAGGGAGCAGCCTCACACAAGCAGAAACACTCCTGTGGATGGTATTGTAGCA
TGTATTGTTTATTTTAGTCAATAGACCCTCTCCTTATAAATGGTGTTTAGTCTTCCTGTTGCATTTCATGGGCCT
GGGGGTTTCCTAGCAGAGGATATTGGAGCCCCTTTTTGTGACATTACCAATTACATCTTTGTCCACGTTAATAC
TTTGTTTTGGAAAATTTAAATGCTGCAGATTTGTGTAGAGTTCTAATACCAAAGACAGAAGTAAATGTTTTCCAT
ATACTTTGTCTTGCCTGTATGCAGCCCTTGTGTAATATGGTGAATTAGAGTGGTATTTCACTTTGTATTATTTTG
TAAATATGTCAATATAATAAATAGTGACTAAAAAAAAAAAAAA

FIGURE 1020

MEPWKQCAQWLIHCKVLPTNHRVTWDSAQVFDLAQTLRDGVLLCQLLNNLRAHSINLKEINLRPQMSQFLCLKNI
RTFLTACCETFGMRKSELFEAFDLFDVRDFGKVIETLSRLSRTPIALATGIRPFPTEESINDEDIYKGLPDLIDE
TLVEDEEDLYDCVYGEDEGGEVYEDLMKAEEAHQPKCPENDIRSCCLAEIKQTEEKYTETLESIEKYFMAPLKRF
LTAAEFDSVFINIPELVKLHRNLMQEIHDSIVNKNDQNLYQVFINYKERLVIYGQYCSGVESAISSLDYISKSKE
DVKLKLEECSKRANNGKFTLRDLLVVPMQRVLKYHLLLQELVKHTTDPTEKANLKLALDAMKDLAQYVNEVKRDN
ETLREIKQFQLSIENLNQPVLLFGRPQGDGEIRITTLDKHTKQERHIFLFDLAVIVCKRKGDNYEMKEIIDLQQY
KIANNPTTDKENKKWSYGFYLIHTQGQNGLEFYCKTKDLKKKWLEQFEMALSNIRPDYADSNFHDFKMHTFTRVT
SCKVCQMLLRGTFYQGYLCFKCGARAHKECLGRVDNCGRVNSGEQGTLKLPEKRTNGLRRTPKQVDPGLPKMQVI
RNYSGTPPPALHEGPPLQLQAGDTVELLKGDAHSLFWQGRNLASGEVGFFPSDAVKPCPCVPKPVDYSCQPWYAG
AMERLQAETELINRVNSTYLVRHRTKESGEYAISIKYNNEAKHIKILTRDGFFHIAENRKFKSLMELVEYYKHHS
LKEGFRTLDTTLQFPYKEPEHSAGQRGNRAGNSLLSPKVLGIAIARYDFCARDMRELSLLKGDVVKIYTKMSANG
WWRGEVNGRVGWFPSTYVEEDE

FIGURE 1021

GTTGACGTGTTCGACTTTCCTGATAATTCTGATGTCTCAAGCATTGGCAGGCTGGGTGAAAATGAGAAAGATGAA
GAAACTTATGAGACCTTTGATCCTCCTTTACATAGCACAGCTATATATGCTGATGAAGAAGAATTCTCCAAACAT
TGTGGACTGTCTCTCTCTTCAACTCCTCCAGGAAAAGAAGCAAAAAGAAGTTCAGACACTTCTGGAAATGAAGCA
AGTGAAATCGAATCTGTAAAAATTAGTGCAAAAAAGCCAGGAAGAAAGCTCAGGCCCATTAGTGATGACTCTGAA
AGCATTGAAGAAAGTGATACAAGGAGAAAAGTTAAATCAGCAGAGAAAATAAGTACACAACGTCATGAGGTTATT
CGAACCACAGCGTCTTCAGAACTTTCAGAGAAACCAGCTGAGTCTGTCACTTCTAAAAAGACAGGACCCCTTAGT
GCCCAGCCCTCTGTTGAAAAAGAGAACTTGGCAATAGAAAGTCAATCGAAAACTCAGAAAAAAGGGAAGATATCT
CATGACAAAAGGAAGAAATCAAGAAGTAAAGCCATAGGCTCAGATACTTCTGACATTGTGCACATTTGGTGTCCA
GAAGGA**ATG**AAAACCAGTGACATCAAGGAGTTGAATATTGTTTTGCCTGAATTTGAGAAAACCCACCTAGAGCAT
CAACAAAGAATAGAATCTAAAGTTTGTAAGGCAGCCATCGCCACATTTTATGTTAATGTTAAAGAACAATTCATC
AAAATGCTTAAAGAAAGCCAGATGTTGACAAATCTGAAAAGGAAGAATGCTAAGATGATTTCAGATATCGAAAAG
AAAAGGCAGCGTATGATTGAAGTCCAGGATGAACTGCTTCGGTTAGAGCCACAGCTGAAACAACTACAAACAAAA
TATGATGAACTTAAAGAGAGAAAGTCCTCCCTTAGGAATGCAGCATATTCTTATCTAATTTAAAACAGCTTTAT
CAAGATTATTCAGATGTTCAAGCTCAAGAACCAAACGTAAAGGAAACGTATGATTCATCCAGCCTTCCAGCTCTG
TTATTTAAAGCAAGAACACTTCTGGGAGCCGAAAGCCATCTGCGAAATATCAACCATCAGTTAGAGAAGCTCCTT
GACCAGGGA**TGA**GAAGAGCAGTCTACTAAAATGTGCCTATAGGAAGACTAGTCTCATGCTGTTACCTTCTGAAAC
TGTACCTTTATAAATCAATTGTTTTGCAAGAAGTTATGGCCTACTTAGAATCTAAAATTTGTTATTCAAATTAA
ATGGCTGTGAACAATGTTAAATAGCATCAGTTTGTCCAATAGTTTTAAAGGCCATAATCATCTTTTCTGGTTAAT
ATCTTGAGTAATTTTAAAATGTTGACACCTTAATCGGTCCCAGGTATGAGCTATAATAAACTTGTAAAATTAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 1022

MKTSDIKELNIVLPEFEKTHLEHQQRIESKVCKAAIATFYVNVKEQFIKMLKESQMLTNLKRKNAKMISDIEKKR
QRMIEVQDELLRLEPQLKQLQTKYDELKERKSSLRNAAYFLSNLKQLYQDYSDVQAQEPNVKETYDSSSLPALLF
KARTLLGAESHLRNINHQLEKLLDQG

FIGURE 1023

ATGTGGGGGCGCACGGCGCGGCGGCGCTGCCCGCGGGAACTGCGGCGCGGCCGGGAGGCGCTGTTGGTGCTCCTG
GCGCTACTGGCGTTGGCCGGGCTGGGCTCGGTGCTGCGGGCGCAGCGTGGGGCCGGGGCCGGGGCTGCCGAGCCG
GGACCCCCGCGCACCCCGCGCCCCGGGCGGCGCGAGCCGGTCATGCCGCGGCCGCCGGTGCCGGCGAACGCGCTG
GGCGCGCGGGGCGAGGCGGTGCGGCTGCAGCTGCAGGGCGAGGAGCTGCGGCTGCAGGAGGAGAGCGTGCGGCTG
CACCAGATTAACATCTACCTCAGCGACCGCATCTCACTGCACCGCCGCCTGCCCGTGCGCTGGAACCCGCTGTGC
AAAGAGAAGAAATATGATTATGATAATTTGCCCAGGACATCTGTTATCATAGCATTTTATAATGAAGCCTGGTCA
ACTCTCCTTCGGACAGTTTACAGTGTCCTTGAGACATCCCCGGATATCCTGCTAGAAGAAGTGATCCTTGTAGAT
GACTACAGTGATAGAGAGCACCTGAAGGAGCGCTTGGCCAATGAGCTTTCGGGACTGCCCAAGGTGCGCCTGATC
CGCGCCAACAAGAGAGAGGGCCTGGTGCGAGCCCGGCTGCTGGGGGCGTCTGCGGCGAGGGGCGATGTTCTGACC
TTCCTGGACTGTCACTGTGAGTGCCACGAAGGGTGGCTGGAGCCGCTGCTGCAGAGGATCCATGAAGAGGAGTCG
GCAGTGGTGTGCCCGGTGATTGATGTGATCGACTGGAACACCTTCGAATACCTGGGGAACTCCGGGGAGCCCCAG
ATCGGCGGTTTCGACTGGAGGCTGGTGTTCACGTGGCACACAGTTCCTGAGAGGGAGAGGATACGGATGCAATCC
CCCGTCGATGTCATCAGGTCTCCAACAATGGCTGGTGGGCTGTTTGCTGTGAGTAAGAAATATTTTGAATATCTG
GGGTCTTATGATACAGGAATGGAAGTTTGGGGAGGAGAAAACCTCGAATTTTCCTTTAGGATCTGGCAGTGTGGT
GGGGTTCTGGAAACACACCCATGTTCCCATGTTGGCCATGTTTTCCCCAAGCAAGCTCCCTACTCCCGCAACAAG
GCTCTGGCCAACAGTGTTCGTGCAGCTGAAGTATGGATGGATGAATTTAAAGAGCTCTACTACCATCGCAACCCC
CGTGCCCGCTTGGAACCTTTTGGGGATGTGACAGAGAGGAAGCAGCTCCGGGACAAGCTCCAGTGTAAAGACTTC
AAGTGGTTCTTGGAGACTGTGTATCCAGAACTGCATGTGCCTGAGGACAGGCCTGGCTTCTTCGGGATGCTCCAG
AACAAAGGACTAACAGACTACTGCTTTGACTATAACCCTCCCGATGAAAACCAGATTGTGGGACACCAGGTCATT
CTGTACCTCTGTCATGGGATGGGCCAGAATCAGTTTTTCGAGTACACGTCCCAGAAAGAAATACGCTATAACACC
CACCAGCCTGAGGGCTGCATTGCTGTGGAAGCAGGAATGGATACCCTTATCATGCATCTCTGCGAAGAAACTGCC
CCAGAGAATCAGAAGTTCATCTTGCAGGAGGATGGATCTTTATTTCACGAACAGTCCAAGAAATGTGTCCAGGCT
GCGAGGAAGGAGTCGAGTGACAGTTTCGTTCCACTCTTACGAGACTGCACCAACTCGGATCATCAGAAATGGTTC
TTCAAAGAGCGCATGTTA**TGA**

FIGURE 1024

MWGRTARRRCPRELRRGREALLVLLALLALAGLGSVLRAQRGAGAGAAEPGPPRTPRPGRREPVMPRPPVPANAL
GARGEAVRLQLQGEELRLQEESVRLHQINIYLSDRISLHRRLPVRWNPLCKEKKYDYDNLPRTSVIIAFYNEAWS
TLLRTVYSVLETSPDILLEEVILVDDYSDREHLKERLANELSGLPKVRLIRANKREGLVRARLLGASAARGDVLT
FLDCHCECHEGWLEPLLQRIHEEESAVVCPVIDVIDWNTFEYLGNSGEPQIGGFDWRLVFTWHTVPERERIRMQS
PVDVIRSPTMAGGLFAVSKKYFEYLGSYDTGMEVWGGENLEFSFRIWQCGGVLETHPCSHVGHVFPKQAPYSRNK
ALANSVRAAEVWMDEFKELYYHRNPRARLEPFGDVTERKQLRDKLQCKDFKWFLETVYPELHVPEDRPGFFGMLQ
NKGLTDYCFDYNPPDENQIVGHQVILYLCHGMGQNQFFEYTSQKEIRYNTHQPEGCIAVEAGMDTLIMHLCEETA
PENQKFILQEDGSLFHEQSKKCVQAARKESSDSFVPLLRDCTNSDHQKWFFKERML

FIGURE 1025

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AATTATATATTTTTACTCTATGTTTCTCTACATGTTTTTTTCTTTCCGTTGCTGGCGGAAGAGGCACGTGCGCTG
CTGAATGGAGCTGGTCGCTGGTTGCTACGAGCAGGTCCTCTTTGGGTTCGCTGTACACCCGGAGCCCAAGGCTTG
CGGCGACCACGAGCAATGGACTCTTGTGGCTGACTTCACTCACCATGCTCACACTGCCTCCTTGTCAGCAGTAGC
TGTAAATAGTCGTTTGTGGTCACTGGGAGCAAAGATGAAACAATTCACATTTATGACATGAAAAAGAAGATTGA
GCATGGGGCTCTAGTGCATCACAGTGGTACAATAACTTGCCTGAAATTCTATGGCAACAGGCATTTAATCAGTGG
AGCGGAAGATGGACTCATCTGTATCTGGATGCAAAGAAATGGGAATGCCTGAAGTCAATTAAAGCTCACAAAGG
ACAGGTGACCTTCCTTTCTATTCACCCATCTGGCAAGTTGGCCCTGTCGGTTGGTACAGATAAAACTTTAAGAAC
GTGGAATCTTGTAGAAGGAAGATCAGCATTCATAAAAAATATAAAACAAAATGCTCACATAGTAGAATGGTCCCC
AAGAGGAGAGCAGTATGTAGTTATCATACAGAATAAAATAGACATCTATCAGCTTGACACTGCATCCATTAGTGG
CACCATCACAAATGAAAAGAGAATTTCCTCTGTTAAATTTCTTTCAGAGTCTGTCCTTGCAGTGGCTGGAGATGA
AGAAGTTATAAGGTTTTTTGACTGTGATTCACTAGTGTGCCTCTGCGAATTTAAAGCTCATGAAAACAGGGTAAA
GGACATGTTCAGTTTTGAAATTCCAGAGCATCATGTTATTGTTTCAGCATCGAGTGATGGTTTCATCAAAATGTG
GAAGCTTAAGCAGGATAAGAAAGTTCCCCCATCTTTACTCTGTGAAATAAACACTAATGCCAGGCTGACGTGTCT
TGGAGTGTGGCTAGACAAAGTGGCAGACATGAAAAGCCTTCCTCCAGCTGCAGAGCCTTCTCCTGTAAGTAAAGA
ACAGTCCAAAATTGGCAAAAAGGAGCCTGGTGACACAGTGCACAAAGAAGAAAAGCGGTCAAAACCTAACACAAA
GAAACGCGGTTTAACAGGTGACAGTAAGAAAGCAACAAAAGAAAGTGGCCTGATATCAACCAAGAAGAGGAAAAT
GGTAGAAATGTTGGAAAAGAAGAGGAAAAAGAAGAAAATAAAAACAATGCAGTGAATCACAGATGTCTCCTGAAA
GAACTCTTTTAGATGAAATCATTCTACTCAAATGTACCTTAATTTTTTTTTTCCCTGAGTAAAAGCAAGAAATT
TCTTCCTTTGGAAAAAATATATATATTAAAAAACCACTTTTAGATGGTTTTTTTAAAAAAAAAAAAAAAAACTGG
TAAAATTACTTTTGGCAGACAGTGTTTTATGAATTATGTATCATGTTGATATATAATATGTTAATGTGTCATGTA
ATTTTTACTTTGTACAAAGCAAATAAAGATCTTTCTCAAAAAAAAAAAAAAAAA
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FIGURE 1026

MELVAGCYEQVLFGFAVHPEPKACGDHEQWTLVADFTHHAHTASLSAVAVNSRFVVTGSKDETIHIYDMKKKIEH
GALVHHSGTITCLKFYGNRHLISGAEDGLICIWDAKKWECLKSIKAHKGQVTFLSIHPSGKLALSVGTDKTLRTW
NLVEGRSAFIKNIKQNAHIVEWSPRGEQYVVIIQNKIDIYQLDTASISGTITNEKRISSVKFLSESVLAVAGDEE
VIRFFDCDSLVCLCEFKAHENRVKDMFSFEIPEHHVIVSASSDGFIKMWKLKQDKKVPPSLLCEINTNARLTCLG
VWLDKVADMKSLPPAAEPSPVSKEQSKIGKKEPGDTVHKEEKRSKPNTKKRGLTGDSKKATKESGLISTKKRKMV
EMLEKKRKKKKIKTMQ

FIGURE 1027

AAACCCAAAGCGGCCGCCGTAGGCGAAGGTGAAG**ATG**GCTGCCTCTGCCTTTGCTGGTGCAGTGAGAGCAGCTTC
AGGAATCCTACGGCCCCTGAATATTTTGGCATCTTCAACCTACCGCAACTGTGTCAAGAATGCCTCTCTTATTTC
TGCATTGTCCACTGGACGTTTTAGTCATATTCAGACACCAGTTGTTTCCTCCACTCCCAGACTTACCACATCTGA
GAGAAACCTGACATGTGGGCATACCTCAGTGATCCTTAATAGAATGGCCCCCGTGCTTCCAAGTGTCCTGAAGCT
GCCAGTCAGATCTCTAACATACTTCAGTGCAAGAAAAGGCAAGAGAAAGACCGTGAAAGCTGTCATCGATAGGTT
TCTTCGACTTCATTGTGGCCTTTGGGTGAGGAGAAAGGCTGGCTATAAGAAAAAATTATGGAAAAAGACACCTGC
AAGGAAGAAGCGATTGAGGGAATTTGTATTCTGCAATAAAACCCAGAGTAAACTCTTAGATAAAATGACGACGTC
CTTCTGGAAGAGGCGAAACTGGTACGTTGATGATCCTTATCAGAAGTATCATGATCGAACAAACCTGAAAGTA**TA
G**ATCAGAAGTTTCACTTGTTTCTCAGTTATTGGATATGTATCTTTGTGTACATATCTTTGCAAAAATGGATAAGT
ACAAAACTTGATGTAAATTGTACCAATGAATACGTAAACATACAGTGACAACATTAAACTTAGAAAAGTTTTAAA
ACTTAATGGATCAGACTTTGCCAGATTTGGTTAGGGAAACAGAAATTTAGAATGGTGCATTATTTTTAACAAATG
GTATTGGCTTAACTAGTTGTTTCAGTTATGCTCTTTTAGTTGCAAGGAATCTCAAGTGGGACAAACATAAAAAGA
CTCAAAAGCTACAAGTTAGCTCAAGCAATGTGACATTATTTCAAGGATATGTGCCAGGGAATTCAGGAACCACCT
CACCAACCCCATCTCCCACTCAGAAATCACCTCCCAGCCTCAGGAAGAGTAGAAATTGGGTGGTGCTCCTCAGCA
GGGGAAGGTGGATGTTTAGGCTTGGGCTCTGCATGCATGTGACTTGCTTCTTTTTGCATTGTTAACTCCATTCTC
TCTATTCACCAACTTCTCTACACAGCTTTTGCATACTTACAGTTTCTGTTCCTTTGTAATAACTTTAACTTGCAC
CTTTGAGGTTCTTTTCTACATGATGACCTTCAGCTCCTGCTGCTAGTCTCCAATTGCCAAGGGAATTTAACTGGG
CCAGACTACCTTTTTATACTAGGTCTGGTTGGGTCATTGTCTAGAGTAGGGATTGGCTGTCCTTAAGTCAGGAGC
CCGCTTTGTATTAGCAGGTTTGCATGCAGCAAAAAAACAGTTATGTGAGCAGTTTCACTTGGAGGTTCACATGGG
GTGGCAGCACACTTAACATCTAACACACCAGGTTCATTGTGTTCATAACACTTGTCATTTACTGTAACAACATTT
TTTCATAGGAGAGTAAATAGCCCTTCAGCATGCTCATTCATGAAACAGAAGAGGCTGTACAAGTGAAGACAAGGG
CTTTTTATGCAAGTTTTGAAAGATAGGTATTTATTTTTTCTAGAGACAGGAGTTTTGCTCTGTTGCCCAGGCTGG
AGTGCAGTGGTGCAATCATAGCTCATTGAAGCCTCGCACTCCTGGGCTCAAGTGGTCCTCCTGCCTCAGCTTACT
GAGTAAGGATATGTATTTCTTAAAAGTTAGTTTATCCACTTCAGATTTCATGTTTTCATTTGTAAGGATAAACTT
TTCCCACAAATTTTCAACAATCATTGTAGAAACTAAGGGGGAGAAAGTAATCTCAGTTGTTTTAGAAACGAAAAA
GTTAAGCATTGTTTACTTGAAGTGGGCAGGGAAGCAGCACTGAGTAAAGTTCAATTGAGTGGTTACAGTCTAGGG
CAGTGGTTCCCAACTCTCCGATCAGAATCATCTGGGAAGCATTTCAAACAGCAAAGTACTTTGAAAACCATTAT
TAAATAGAATTATGCATGAATTACTGTTTCAGATCCTTTAATGTGGTAGTTGGTAATAATAAGATGAAATTCCTC
TGTTGTTAGTAAAATTATGAAATTGAAGTTCTGCAGCATGTCAGGCCAGGATTATTAGGGAGATTCCTCGAAACT
AGTGTGTGTTTATTAAAAGGAGAAAGGATAACAATAGAATGTTCTAAAACCAGAAGTCCAAGTGCGTGTCTACTT
ATGGGACCAATAAATAAAGAACAGACATTTGATTTGAGGTGAGGTAAAAGCCTGAAACATGGAATGGCATTCTGT
TTTGATGGATTTTCATTTCTTCGCACTTCTGAGACGGCAAAGCCAACCACTTAGAAGCCTTCCACATCTTTGTCA
CCTGCCTGGCTCCTGCTCTCTGATGTACCTCTGGGTAGTGAGATGGAAATGGTGCCTGCAGAAGTTGGGGAGAAG
GATACTTTTGCACAGCCTCCATGATGTCTTTATTGCAAATATGGATGACAAGGGTCTCTGTTACAGGGGCCTCAG
AGCACCTTCGTTTCTCCTCTAGACCAGGGACAGGTGTAGAGATAAGGACTGGCAACCAGAGCCTCAGCATCCAAA
GATGGACTGAAGTGGGATGGCTGACAGGCACATAACTTACGGGAAAGGGAATTTCATACATACGATTTTTGTTTT
GTGGGTAGGAGGGCTTATCATCAACACTGATTTTATAATCTGACAATAAATGTCTTTCATTAAAGAGTTTACCTA
AATGAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 1028

MAASAFAGAVRAASGILRPLNILASSTYRNCVKNASLISALSTGRFSHIQTPVVSSTPRLTTSERNLTCGHTSVI
LNRMAPVLPSVLKLPVRSLTYFSARKGKRKTVKAVIDRFLRLHCGLWVRRKAGYKKKLWKKTPARKKRLREFVFC
NKTQSKLLDKMTTSFWKRRNWYVDDPYQKYHDRTNLKV

FIGURE 1029

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GGCGCCGGGGGACACGTTGGCTGCGTTTTCGGCGGGCCTCCCGGGTACAAAAATGGCTGTGGCTAGCGATTTCTA
CCTGCGCTACTACGTAGGGCACAAGGGCAAGTTTGGGCACGAGTTTCTGGAGTTCGAATTTCGGCCGGACGGAAA
GCTTAGATATGCCAACAACAGCAATTACAAAAATGATGTGATGATCAGAAAAGAGGCTTATGTGCACAAGAGTGT
AATGGAAGAACTGAAGAGAATTATTGATGACAGTGAAATTACAAAAGAAGATGATGCTTTGTGGCCTCCCCCTGA
TAGGGTTGGCCGACAGGAGCTTGAAATTGTAATTGGAGATGAGCACATATCTTTTACCACATCAAAAATAGGTTC
TCTTATTGATGTAAATCAGTCAAAGGATCCTGAAGGCCTTCGAGTATTTTACTATTGGTACAAGACTTGAAATG
TTTAGTTTTCAGTCTTATTGGATTACACTTCAAGATTAAACCAATTTAAATTGTATGTTTTCAGGCTGTTTGTAT
ATTTAATTAAGGGATGGGAGGGGGTTATTTGTCATTTACAGTATTGGGGTTTTTATGAATGTGAAGCAAACAAAAA
AAATTTGTATGTAAACTGAAAATAAGAAAATACATTAGCAAGCTTAATGGTTATCCTTACTTGAGTCCACATGGG
TTGGACAGTCCCCACACACATTAAATTCTGTAAATGAAAGCCACCTTTTGTTAAAAATTTGCTCTAATAAAACAT
ACCAAATCCTGGTTGCAGAGTAGTTTTTTGTTTTTTCCAGGAGGCTATGTCTCTAATTCACTTTAGAGATAATAA
GAAATTGTTCTGGTAGATACATCCTGTGACAGAAGATACTTTAGGTGGAACTATGTAGCCAGATTCCCATCCATG
AAAGGCAAGTGTAGATTGTCCCTTATTTCCTTCATACATGATTGGATTTAATTTTGGGGGGCTTATACAAGGTCT
AGTTTTTTTTTACAGTTATGACAAACCCCTCAGGGATTATTCACATTTAAATATTTTCAGTTACAAGCAGTGAGG
TCCTAAAGTGTTACAAGAGTACAGTCTACCCCATGTTAGGCATATCTTTGATTATGTCTTTATTCCTTATTTCAC
AATGTATTTGGTGTGTAGGGGAGGGGGGAGAACTAAATGAGTTTTCAGCTTTATAAATTGTTAAACATTTAGACA
AACATATATGTATGTATGAATGTACATAAATATTTTTAACTCCTATTGACCACGAGTCTCACTTCAGTTTCCCAG
TTCCTTTCAACCTCTTTCTGATAGATTTCCTCTTTCATTACTTTTAGTAACCATGTTCCTTGTTTCCTTTTATTC
TTCCATCTGAAGCCCCACTCTTAAAAAGTTGCACTGTTCCAGTAGTTATAATCCACTTGCCCTAGGAACAAGTTA
GCACTGAATTTTGGGTGGAATAATTAGTTTCTGAAGGCTTGCCAGGACCCCTGAGCAGGTAGGCTCTAGAGTCGG
GCAGTCCAATAACTTTTTTGCAATAATGGAAACGTCCTATGTGCAGTCCAATAGGGTAGCAACTGGCCAAATGAG
GCCTACTGATTACTTGAGGTGTGCCTTGTATAACTGAATTTATGGTGCTATTTAAACAATTTTTTTCTAACGTGA
AAAGGATAAAACATAAAAAACTCTTGAGAACTATAAAGTGAACACCTATATGCCTACCCCTACCTAGATTCTATA
CTTAACATCTTTTTTACTGTAATATCTCTATTATAATAAATCTTGGTTTTTCACTTAACTGGTGTAATTGGTGCC
AATAAACTACTTTTTTTGTAGTGCTATTTAATTTTGATTAAATTTAGATAGCCACGTGTCTAGCGGCTACCGTTT
GGACAGTATAGCTCTAGAGCATGGCTTGGTAACCTGTTTGCCATGGAGCACTAGATGGTCCTTTTCACTCCTCAA
AATGCATGCCCATTGCCTTCAGGTTTGCCATGGAAAGTCAAATGATTTCCACTTCATTATGCAAGTACGCTATCA
TCTTCAGGTCTTTTGTATGTAAAATGTTTCTGTTCCAGTTGTAGACCTTGATGATTGTGCAGTATGAAATCGTAT
TGTAATTTTCTTGCATTTAGATGTCAACCTCAGAAACAGGAACAATCGTCTTTTGAACTTCCAGTAGGCCCACAG
TTGTTGGTTGTTCCTCAAAACAGGTTGTGGCTCCTGTTGAATAAGATGATCCATTAAAAACTGAACAAGGTTGAG
GAGAAATAGTGCTTACGTTGAAAAATCTTTAAGTCTTTGTCCCCGTTCTCTAACTTCCTTACGTTTTCGTTTATT
TAGCTCCATCCCCACTATCTACTAGAATTTCTCATATTTAAACCAAGATGGGAGACTAGGTCATTAGGAAAATAT
TACCGTCTACAATTTTCTTATACTTTGATCTGTCTTTTATTTGATTGTAAGTTGCTGATGGACAGTGATCATTAG
AAACTGAATTTTGTATAATACTAGTTTTATATGAAACTAGATATTTATTGCGCTCAGGTTATGTTCCTTTTACCT
CCTTCCTTAATAAAGAGACCACTTGAAAT
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FIGURE 1030

MAVASDFYLRYYVGHKGKFGHEFLEFEFRPDGKLRYANNSNYKNDVMIRKEAYVHKSVMEELKRIIDDSEITKED
DALWPPPDRVGRQELEIVIGDEHISFTTSKIGSLIDVNQSKDPEGLRVFYYLVQDLKCLVFSLIGLHFKIKPI

FIGURE 1031

GTTGCCGCTGCGCACCTGGCTCAGGTGAGCTGCCCCGCCCCCGCCCGGCGCGAGCCCCAGGTCCTGGCAGCAGCC
CCTGACCTGTCCAGGTGCCCTGTCCAGCTGACTGCAAGGACAGAGAGGAGTCCTGCCCAGCTCTTGGATCAGTCT
GCTGGCCGAGGAGCCCGGTGGAGCCAGGGGTGACCCTGGAGCCCAGCCTGCCCCGAGGAGGCCCCGGCTCAGAGC
C**ATG**CCAGGTGTCTGTGATAGGGCCCCTGACTTCCTCTCCCCGTCTGAAGACCAGGTGCTGAGGCCTGCCTTGGG
CAGCTCAGTGGCTCTGAACTGCACGGCTTGGGTAGTCTCTGGGCCCCACTGCTCCCTGCCTTCAGTCCAGTGGCT
GAAAGACGGGCTTCCATTGGGAATTGGGGGCCACTACAGCCTCCACGAGTACTCCTGGGTCAAGGCCAACCTGTC
AGAGGTGCTTGTGTCCAGTGTCCTGGGGGTCAACGTGACCAGCACTGAAGTCTATGGGGCCTTCACCTGCTCCAT
CCAGAACATCAGCTTCTCCTCCTTCACTCTTCAGAGAGCTGGCCCTACAAGCCACGTGGCTGCGGTGCTGGCCTC
CCTCCTGGTCCTGCTGGCCCTGCTGCTGGCCGCCCTGCTCTATGTCAAGTGCCGTCTCAACGTGCTGCTCTGGTA
CCAGGACGCGTATGGGGAGGTGGAGATAAACGACGGGAAGCTCTACGACGCCTACGTCTCCTACAGCGACTGCCC
CGAGGACCGCAAGTTCGTGAACTTCATCCTAAAGCCGCAGCTGGAGCGGCGTCGGGGCTACAAGCTCTTCCTGGA
CGACCGCGACCTCCTGCCGCGCGCTGAGCCCTCCGCCGACCTCTTGGTGAACCTGAGCCGCTGCCGACGCCTCAT
CGTGGTGCTTTCGGACGCCTTCCTGAGCCGGGCCTGGTGCAGCCACAGCTTCCGGGAGGGCCTGTGCCGGCTGCT
GGAGCTCACCCGCAGACCCATCTTCATCACCTTCGAGGGCCAGAGGCGCGACCCCGCGCACCCGGCGCTCCGCCT
GCTGCGCCAGCACCGCCACCTGGTGACCTTGCTGCTCTGGAGGCCCGGCTCCGTGACTCCTTCCTCCGATTTTTG
GAAAGAAGTGCAGCTGGCGCTGCCGCGGAAGGTGCGGTACAGGCCGGTGGAAGGAGACCCCCAGACGCAGCTGCA
GGACGACAAGGACCCCATGCTGATTCTTCGAGGCCGAGTCCCTGAGGGCCGGGCCCTGGACTCAGAGGTGGACCC
GGACCCTGAGGGCGACCTGGGTGTCCGGGGGCCTGTTTTTGGAGAGCCATCAGCTCCACCGCACACCAGTGGGGT
CTCGCTGGGAGAGAGCCGGAGCAGCGAAGTGGACGTCTCGGATCTCGGCTCGCGAAACTACAGTGCCCGCACAGA
CTTCTACTGCCTGGTGTCCAAGGATGATATG**TAG**CTCCCACCCCAGAGTGCAGGATCATAGGGACAGCGGGGGCC
AGGGCAGCGGCGTCGCTCCTCTGCTCAACAGGACCACAACCCCTGCCAGCAGCCCTGGGACCCTGCCAGCAGCCC
TGGGAAAAGGCTGTGGCCTCAGGGCGCCTCCCAGTGCCAGAAAATAAAGTCCTTTTGGATTCTGAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 1032

MPGVCDRAPDFLSPSEDQVLRPALGSSVALNCTAWVVSGPHCSLPSVQWLKDGLPLGIGGHYSLHEYSWVKANLS
EVLVSSVLGVNVTSTEVYGAFTCSIQNISFSSFTLQRAGPTSHVAAVLASLLVLLALLLAALLYVKCRLNVLLWY
QDAYGEVEINDGKLYDAYVSYSDCPEDRKFVNFILKPQLERRRGYKLFLDDRDLLPRAEPSADLLVNLSRCRRLI
VVLSDAFLSRAWCSHSFREGLCRLLELTRRPIFITFEGQRRDPAHPALRLLRQHRHLVTLLLWRPGSVTPSSDFW
KEVQLALPRKVRYRPVEGDPQTQLQDDKDPMLILRGRVPEGRALDSEVDPDPEGDLGVRGPVFGEPSAPPHTSGV
SLGESRSSEVDVSDLGSRNYSARTDFYCLVSKDDM

FIGURE 1033

AGTCTTGGCGGAGGTGACCAAAGCCACGTA**ATG**TCCGTAGTTCGCTCATCCGTCCATGCCAGATGGATTGTGGGG
AAGGTGATTGGGACAAAAATGCAAAGACTGCTAAAGTGAGAGTGACCAGGCTTGTTCTGGATCCCTATTTATTA
AAGTATTTTAATAAGCGGAAAACCTACTTTGCTCACGATGCCCTTCAGCAGTGCACAGTTGGGGATATTGTGCTT
CTCAGAGCTTTACCTGTTCCACGAGCAAAGCATGTGAAACATGAACTGGCTGAGATCGTTTTCAAAGTTGGAAAA
GTCATAGATCCAGTGACAGGAAAGCCCTGTGCTGGAACTACCTACCTGGAGAGTCCGTTGAGTTCGGAAACCACC
CAGCTAAGCAAAAATCTGGAAGAACTCAATATCTCTTCAGCACAG**TGA**AGCGGGAGTGGAAGAAGGATCTAAAGG
GAAAAACTGACATGTTTATGTTATGGAAAAAGAAATTTTTCTAAGTTTCATCACAAACTGTGTCCAGTTTCTCTG
TGGTGTTTATGAAATAGCTAAAAGCAAATGAAGTAAAGGGCATACTATGGTTTTTCACAAAAAAAAAAAAAAAAAA

FIGURE 1034

MSVVRSSVHARWIVGKVIGTKMQKTAKVRVTRLVLDPYLLKYFNKRKTYFAHDALQQCTVGDIVLLRALPVPRAK
HVKHELAEIVFKVGKVIDPVTGKPCAGTTYLESPLSSETTQLSKNLEELNISSAQ

FIGURE 1035

GGCGCGCTTTCAAACGCTCAGGTTTCCTACCTTCCGGCTGCTTGGGAACTTCTTTCTTGCCCGCCAAGCCCGCAG
CCACCCGGGCGCGGCGGGACTCCTAGACCCGGCGCTGCG**ATG**AAGAGGACCCGCGACGAGGTGGATGCGACGCTG
CAGATCGCCAAGCTGAATGCGGCCGAGCTGCTGCCGGCGGTGCACTGCCTGGGCTTCGGCCCTGGGGCCAGCGGC
GCTGCAGCCGGCGACTTCTGCCTGCTGGAGCTGGAGCCCACGCTGTGCCAGCAGCTGGAGGATGGACACAGTCTT
GTGATTCGTGGTGATAAAGACGAGCAAGCTGTGCTGTGCAGTAAAGACAAAACATACGACTTGAAGATAGCAGAC
ACTTCCAATATGTTGCTTTTCATTCCTGGTTGTAAAACTCCGGACCAGTTGAAGAAGGAAGATTCACACTGTAAC
ATTATTCACACTGAGATCTTTGGTTTTTCTAATAATTATTGGGAATTAAGAAGACGTAGACCCAAGTTAAAGAAG
CTAAAGAAACTTTTGATGGAAAATCCATATGAAGGACCTGACAGTCAAAAAGAGAAGGATTCAAATAGCTCAAAA
TATACAACTGAAGATTTGCTTGATCAAATTCAGGCAAGTGAGGAAGAAATAATGACCCAATTACAAGTTCTAAAT
GCCTGTAAGATTGGAGGTTATTGGAGGATTCTTGAATTTGATTATGAGATGAAACTTCTGAATCATGTAACTCAG
CTTGTGGATTCTGAATCATGGTCTTTTGGTAAAGTTCCTTTGAACACATGCCTTCAGGAACTCGGACCATTGGAG
CCAGAGGAAATGATAGAACACTGTCTTAAATGTTATGGGAAGAAATATGTAGATGAAGGCGAAGTTTATTTTGAG
TTGGATGCTGATAAAATATGTAGAGCAGCAGCACGAATGCTACTTCAGAATGCGGTGAAATTCAATCTCGCTGAG
TTTCAAGAAGTGTGGCAGCAGAGTGTTCCTGAAGGAATGGTAACTAGTCTTGATCAGCTTAAGGGTTTAGCGCTG
GTGGATAGACACTCGAGACCAGAAATCATATTTTTGCTGAAAGTAGATGATTTACCTGAGGATAATCAGGAACGT
TTTAATAGCCTTTTCTCTCTAAGGGAGAAGTGGACAGAAGAAGATATTGCTCCATATATTCAAGATTTGTGTGGA
GAGAAGCAAACCATAGGTGCATTACTCACTAAATATTCTCGTTCTTCGATGCAAAATGGTGTTAAAGTTTATAAT
TCGAGAAGACCCATTTCT**TAA**AAGAACAACAGTCTTTTCTTCAGGACTCAAGTTGCTTTATAAAGTTGCTGGATA
CAAGAAAAATAACTTGTACTTTTATTTCTGACTTTTAGAAACCTAGTCTTCTAAGGCATTTTTCTCCTCATCTTA
AGCATTTTGAAACTACTGTTATTTCTTAAATGTTATAGGATGTAGCTTTAAAATTATATTTGTACTATGTACACA
GTGTAAACAAGGACAAAAGAATTCTTTCCTATATTATGTCTGAGGTCTCTATGATTTATTTAAAGTTTGGCTTTT
TATATTTAAAATGTCATTTCTTTACTTAGGATTTGATGTTCTAATCATTAATACACTTAAGTTTTCCAGAGAACT
AAATAGTAATAGTTTCATAGAAGAGAACTATTTATTCACTTAAATATCATTTCTCAAGTGAGTGAGTTCCCCTCT
ACTTTTAGCCTTCCACCCAAACTGGAAGCCTCTAGGTGCTATCAATTATTTATATCCATCGTTTACATCCATGAA
ATTGGCTGAATAATTACTCCTCTGCCTGGCGTAGACATGTGCTTTGGGAAAAAAACGAGTTTATAATCCTATAAT
GAAGAATACTGGCACAGGCAATGCTCACTCGAAAACTTCAAGTAATTTCTAGTTGGTTTTGGAATGCTTGATAAA
GTTCCTTTACAGCTTTATTTTCCTGATTTGTTTTGGTTTAGATCAAAGTTCAAATTAATTTTAACTTAGCTAATG
AACTCATCACCAGGACAGTTGGAGGGGGTAGGCCGAGGTTAAATGGTCCACGTTTCAAAAATGTTAATGGCTAAT
CCATAATTAAAGAAGGTTTAACTGTTACTGAAGTTTACAAGTTTTATTGTCATGAACATGAAATACAAACACGAT
GGCTTCGAAATGTCTTTCAATAAATGTTTCTGCATTTAAAAAAAAAAAAAAAAAAAAA

FIGURE 1036

MKRTRDEVDATLQIAKLNAAELLPAVHCLGFGPGASGAAAGDFCLLELEPTLCQQLEDGHSLVIRGDKDEQAVLC
SKDKTYDLKIADTSNMLLFIPGCKTPDQLKKEDSHCNIIHTEIFGFSNNYWELRRRRPKLKKLKKLLMENPYEGP
DSQKEKDSNSSKYTTEDLLDQIQASEEEIMTQLQVLNACKIGGYWRILEFDYEMKLLNHVTQLVDSESWSFGKVP
LNTCLQELGPLEPEEMIEHCLKCYGKKYVDEGEVYFELDADKICRAAARMLLQNAVKFNLAEFQEVWQQSVPEGM
VTSLDQLKGLALVDRHSRPEIIFLLKVDDLPEDNQERFNSLFSLREKWTEEDIAPYIQDLCGEKQTIGALLTKYS
RSSMQNGVKVYNSRRPIS

FIGURE 1037

GAGTTTTCATTTGTGGTGAGATTCTCTCCCAGGCCACAAGACATTTCCTGCTCGGAACCTTGTTTACTAATTTCC
ACTGCTTTTAAGGCCCTGCACTGAAA**ATG**CAAGCTCAGGCGCCGGTGGTCGTTGTGACCCAACCTGGAGTCGGTC
CCGGTCCGGCCCCCCAGAACTCCAACTGGCAGACAGGCATGTGTGACTGTTTCAGCGACTGCGGAGTCTGTCTCT
GTGGCACATTTTGTTTCCCGTGCCTTGGGTGTCAAGTTGCAGCTGATATGAATGAATGCTGTCTGTGTGGAACAA
GCGTCGCAATGAGGACTCTCTACAGGACCCGATATGGCATCCCTGGATCTATTTGTGATGACTATATGGCAACTC
TTTGCTGTCCTCATTGTACTCTTTGCCAAATCAAGAGAGATATCAACAGAAGGAGAGCCATGCGTACTTC**TAA**A
AACTGATGGTGAAAAGCTCTTACCGAAGCAACAAAATTCAGCAGACACCTCTTCAGCTTGAGTTCTTCACCATCT
TTTGCAACTGAAATATGATGGATATGCTTAAGTACAACTGATGGCATGAAAAAAATCAAATTTTTGATTTATTAT
AAATGAATGTTGTCCCTGAACTTAGCTAAATGGTGCAACTTAGTTTCTCCTTGCTTTCATATTATCGAATTTCCT
GGCTTATAAACTTTTTAAATTACATTTGAAATATAAACCAAATGAAATATTTTAACTGATAAAAAAAAAAAAAAA
AAATAAAAAA

FIGURE 1038

MQAQAPVVVVTQPGVGPGPAPQNSNWQTGMCDCFSDCGVCLCGTFCFPCLGCQVAADMNECCLCGTSVAMRTLYR
TRYGIPGSICDDYMATLCCPHCTLCQIKRDINRRRAMRTF

FIGURE 1039

GGAAGAAAACCTGAAAAAGACCCCAAAGAAGAAT**ATG**AAAATGGTAACTGGAGCCGTAGCGTCGGTGCTGGAAGA
CGAGGCCACAGACACTTCTGATAGTGAAGGAAGCTGTGGATCGGAAAAGGACCACTTTTATTCTGATGATGACGC
AATAGAAGCTGACAGTGAGGGTGATGCTGAGCCCTGTGACAAAGAAAATGAAAATGATGGAGAATCAAGTGTTGG
GACTAATATGGGCTGGGCAGATGCTATGGCTAAAGTCCTCAACAAGAAAACTCCTGAAAGTAAACCTACTATTCT
GGTCAAAAATAAGAAGCTGGAAAAGGAAAAAGAAAAGTTAAAGCAAGAAAGACTAGAGAAAATAAAACAGCGTGA
TAAGAGGCTGGAGTGGGAAATGATGTGCAGAGTAAAGCCAGATGTTGTCCAAGACAAAGAGACAGAGAGAAATCT
TCAGAGAATTGCAACAAGGGGTGTGGTGCAATTATTTAATGCTGTTCAGAAACATCAAAAGAATGTTGATGAAAA
GGTTAAGGAAGCTGGAAGTTCTATGAGAAAGCGTGCTAAGTTGATATCAACTGTTTCCAAGAAAGATTTCATCAG
TGTTTTGAGAGGGATGGATGGAAGTACAAATGAGACTGCTTCAAGCAGGAAGAAACCAAAAGCCAAACAGACTGA
AGTGAAATCAGAAGAAGGCCCAGGTTGGACGATCCTACGTGATGATTTCATGATGGGAGCATCTATGAAAGACTG
GGACAAGGAAAGTGATGGGCCAGATGACAGCAGACCAGAATCTGCAAGTGACTCTGATACA**TAA**AGCATCATAGG
AAATACAATTGCAGTCGTTTTATTTTTTCTAGAAAAATATGTCATCCTCTGATAGTTGGGGAATTATAAGGATAC
CATTTGTAAGAAAGCCAAAAGACTTTTGCCAGATTTCATATTTCCCCTTTTCATGTACACTTTATATATACTTCA
TTAAAATTATATTTTAAACCCTTGTATAATTTTAAGCATTGTTCCTCAGAACATTTGTAAAGGATATATTTCTG
CTTGACCAGCGAGATGTGCATTTTGCCAGGATCATATTGGTCATGTCTATTGGTGTATTATTTCAGTATCACCAA
TGTTTTCAGAAATACAGTACTAATTCATCATTAAACTCTTTGAAGTTAATATTTTTCTGCCTTCTAACTTATAGA
CTCAACTATGTATCTGTAGTTTTTGGGAATGGTTGGTGTTTTTTGCTTTGTGTTGGGAAGTTATTGAGAAAACCT
ATATAATAAAATTTAAAATTATAGTTTTTCAAA

FIGURE 1040

MKMVTGAVASVLEDEATDTSDSEGSCGSEKDHFYSDDDAIEADSEGDAEPCDKENENDGESSVGTNMGWADAMAK
VLNKKTPESKPTILVKNKKLEKEKEKLKQERLEKIKQRDKRLEWEMMCRVKPDVVQDKETERNLQRIATRGVVQL
FNAVQKHQKNVDEKVKEAGSSMRKRAKLISTVSKKDFISVLRGMDGSTNETASSRKKPKAKQTEVKSEEGPGWTI
LRDDFMMGASMKDWDKESDGPDDSRPESASDSDT

FIGURE 1041

GCTGCCGCCCCGCACTCGGGCGAGCGCGGGAGCCGCACAGTAGACGGAGCGCGCCCGGCCGAGCGGGCCATGGCC
GCGGGGGCCGCCGCCGCAGGTGGTGGCGCGCGGTGAGGAGAGCGCGGCGCCCCCTCCGGGGCGGATGGAACGCGG
CTCGGCGGGCGGGCAGTGCCGGCGTCCGCGGCTGGAATGGTGCTGGCTGTGTTGGTCGGTGCCTGCGTTCTGAAG
CCCGAGAGGAGCCACA**ATG**GAGACGCCGCCGCTGCCTCCCGCATGCACAAAGCAGGGTCATCAGAAGCCTCTCGA
TTCAAAAGATGATAATACCGAAAAACACTGCCCAGTGACAGTGAATCCTTGGCATATGAAGAAAGCTTTCAAAGT
CATGAACGAATTAAGAAGTCAAAATTTGCTGTGCGATGTCACAATTGTGGCAGAAGACATGGAAATTTCTGCTCA
TAGAGTGGTGCTGGCCGCCTGTAGTCCTTATTTTCATGCCATGTTTACAGGTGAGATGAGTGAGAGCCGAGCAAA
GAGAGTTAGAATAAAAGAGGTAGATGGCTGGACCCTGAGGATGCTAATTGATTATGTTTACACTGCAGAAATTCA
GGTTACAGAAGAAAATGTACAGGTACTTCTCCCAGCAGCTGGTCTCTTACAGTTACAGGATGTGAAGAAGACTTG
TTGTGAATTTTTGGAATCCCAGCTTCACCCTGTCAACTGCTTAGGAATCCGGGCTTTTGCTGATATGCATGCATG
TACTGACCTTCTGAACAAGGCCAACACCTATGCAGAGCAACATTTTGCAGATGTTGTACTTAGTGAAGAATTTCT
CAATCTTGGCATCGAACAAGTGTGCAGCTTAATCTCAAGTGACAAACTTACCATTTCTTCAGAAGAGAAGGTATT
TGAAGCAGTAATAGCATGGGTGAACCATGACAAGGATGTGAGGCAAGAGTTTATGGCCCGACTGATGGAACATGT
ACGGTTACCTTTGCTTCCTCGGGAATATTTAGTTCAGAGGGTTGAAGAGGAAGCATTGGTCAAGAATAGCAGTGC
TTGCAAAGATTACCTCATTGAAGCAATGAAGTACCATTTGCTGCCAACAGAGCAGCGTATATTAATGAAGAGTGT
CCGGACCCGGCTGAGGACACCCATGAACCTTCCCAAATTGATGGTGGTGGTTGGGGGCCAAGCACCAAAGGCTAT
CCGGAGTGTGGAATGCTATGACTTTAAAGAAGAAAGGTGGCACCAAGTAGCAGAGTTGCCTTCCAGGAGGTGCAG
GGCAGGCATGGTCTACATGGCTGGACTTGTTTTTGCTGTTGGTGGCTTTAATGGCTCATTAAGAGTTCGCACTGT
AGATTCCTACGACCCTGTGAAGGACCAGTGGACCAGCGTTGCTAACATGAGAGACCGGAGAAGCACTTTGGGAGC
TGCTGTGTTAAATGGATTATTATACGCTGTGGGAGGCTTTGATGGGAGTACAGGTTTGTCATCTGTGGAAGCATA
CAACATAAAGTCTAATGAGTGGTTTCATGTAGCTCCCATGAATACAAGGAGGAGCAGTGTTGGTGTGGGTGTTGT
TGGAGGTTTGCTCTATGCTGTAGGAGGTTATGATGTAGCATCACGTCAGTGTCTTAGCACAGTAGAATGCTATAA
TGCTACAACAAATGAGTGGACCTATATAGCAGAAATGAGCACCAGGCGGAGTGGAGCAGGTGTTGGTGTGTTAAA
CAATTTATTGTATGCTGTAGGAGGTCATGATGGCCCTTTAGTACGAAAAAGTGTTGAAGTATATGATCCCACCAC
TAACGCATGGAGACAGGTTGCÀGATATGAACATGTGCAGAAGAAATGCAGGAGTTTGTGCAGTTAATGGTCTGTT
ATATGTTGTTGGAGGGGATGATGGTTCCTGTAACTTGGCGTCAGTAGAATATTATAACCCAACAACCGATAAATG
GACAGTTGTGTCATCGTGTATGAGCACAGGGAGAAGTTATGCAGGGGTCACAGTTATTGATAAACGATTA**TGA**GC
CTGAAGGACATTTTCAGCATATTTATACATGAGAAACAGCCTTCAACAAGTATTTGTGAAGTGACTGAGAATCTA
GCACTTCTCCACTTGTAGCTGCACTTTAAGTCTCAGCAGAAGATACGATCGTCTGCCTTTATAGGCCTCAGATAC
TGAAGATTATTTTTGGTAGAAGCACCGTGTAGGCTTTTTCTGCAATGAGCAGCAGCTGACTGAATTTTCATAAGA
AACTTGGACTGCAGGACTTAATCTGTAGTCTTTAGACAACAGTTGCTTTCATAAAGACTAGTTCTTATCAACCTT
GAATGACTACAGATTATTTTGTGAAGGAGGATGAAGTAATGTGTGTTCTTGTAAAATTAAATTTTATCTTTATTT
CTTCTAAAAATCTGTATACCAGGAACTGAAAATCTTTGAACAGATATTAAAATCTACGTAAGTATACAAACTAGT
TGAGGGATACACTGTTTGCTTTTATAAAATAACTTTGATTACATGAATATAATAAATTATGTGCATATAAATGTG
TGTCTATATGCTTTCCTTTAAATATGTTTGAAAGATGTTTGAAACTTGATTATACTATTTATAATTGGCACAGT
ACTTTGAATTATGCCAGTACTACATTGTAAAACAGAGTTGTATTTTTGATATTTAACAATGCTTAACACTTTAA
ATGCCACTTCTGAGGAATGGACCTGGTGTAACACACTTGAATATGTGTGATGCCAAACTTTTTAAAATACAATAT
AAGTTATGCTTATTTATTATTTTCTTTAGTTTAATCTTGGTCATGTTTTGGTGTGTATTTTTAATTTTTTTCTTA
AATTAACACTTTGGCATGAACATTACTGCAGGTTTTTGATGAATATAATGAATGTATGGAATTCAATTGAATTTG
CATGGTCTTCGGAATTTTTTCTGTGTGTATAAATTTAGCTGCTATTAACAGAAGAGAGAACTTTCTGTGAGTAGC
CATGTGTGTTGATCAGATACAGTTTTTCTGAGATCTTCAATTAATCTCACTTTAAAAATGACCAAAACATGTCTT
TCTTGAATTAACTTTGAATAAAAGTTTGTATATTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGAAAAAAA
AAAAAAAA

FIGURE 1042

METPPLPPACTKQGHQKPLDSKDDNTEKHCPVTVNPWHMKKAFKVMNELRSQNLLCDVTIVAEDMEISAHRVVLA
ACSPYFHAMFTGEMSESRAKRVRIKEVDGWTLRMLIDYVYTAEIQVTEENVQVLLPAAGLLQLQDVKKTCCEFLE
SQLHPVNCLGIRAFADMHACTDLLNKANTYAEQHFADVVLSEEFLNLGIEQVCSLISSDKLTISSEEKVFEAVIA
WVNHDKDVRQEFMARLMEHVRLPLLPREYLVQRVEEEALVKNSSACKDYLIEAMKYHLLPTEQRILMKSVRTRLR
TPMNLPKLMVVVGGQAPKAIRSVECYDFKEERWHQVAELPSRRCRAGMVYMAGLVFAVGGFNGSLRVRTVDSYDP
VKDQWTSVANMRDRRSTLGAAVLNGLLYAVGGFDGSTGLSSVEAYNIKSNEWFHVAPMNTRRSSVGVGVVGGLLY
AVGGYDVASRQCLSTVECYNATTNEWTYIAEMSTRRSGAGVGVLNNLLYAVGGHDGPLVRKSVEVYDPTTNAWRQ
VADMNMCRRNAGVCAVNGLLYVVGGDDGSCNLASVEYYNPTTDKWTVVSSCMSTGRSYAGVTVIDKRL

FIGURE 1043

AGAAATCAACTGCTTAGCCGGGTTGTTAGGAGGATCTGATGAGACTAGGATGTGAGTTGAAACTGCTGTGCCAGG
CACACCTGTGTGGGTCTCACTTGTGCCAGGCATACCTGCGTGGGTCTCACCTGTGTAGGTCTCACCTGTGCCAGG
TGTACCTGTGTGGGTCTTACCTGTGCAGGTCTCCTGATGCAGGTCTCACCTGTGCCGAGTGTACCTACCTGTGCG
GGTCTCACCTGTGTCAGGCGTACGTGTAGGGGTCTCACCTGTGAACGTCTCACCTGTGCCAGGTGTATACCTGTG
TGGCTCTCACTTGTGTGGGTCTGGTATGTGACAAAGGCCTGGGAATTGGCAGCTGTCATCTGCCAGGAGCAGACC
CTGAGCCAAGTTCCCTGTGCCTTAGGCTCATTTCATGCCCTCAGCTCTGGGAGGCCAATCCCTTTACTGCCACAT
TTTATAAATGGAAGACTGAGGTTAAGCAGTGGGCCCAGGGCCATAGAACAGCTGAGCTGTGGAGCTGGACATCGA
CCTTGGGCAGGTGCTGCCAGGGGCCTGAGCCCAGGCCCTCCACTCCCGCATCCTCTGATGACCCATCCTGGGTGA
GTGGAGGCATCTGCCCGCGCCAGTCAGGCCCAGTGGTG**ATG**GCCCCCATGCCCACAGGACAGAAGCTGCTGGACT
CACTGGCAGAGACCTGGGACTTCTTCTTCAGTGACGTGCTGCCCATGCTGCAGGCCATCTTCTACCCGGTGCAGG
GCAAGGAGCCATCGGTGCGCCAGCTGGCCCTGCTGCACTTCCGGAATGCCATCACCCTCAGTGTGAAGCTAGAGG
ATGCGCTGGCCCGGGCCCATGCCCGCGTGCCCCCTGCCATCGTGCAGATGCTGCTGGTGCTGCAGGGGGTACATG
AGTCCAGGGGCGTGACTGAGGACTACCTGCGCCTGGAGACGCTGGTCCAGAAGGTGGTGTCGCCATACCTGGGCA
CCTACGGCCTCCACTCCAGCGAGGGGCCCTTCACCCATTCCTGCATCCTGGAAAAGCGCCTCCTCCGCCGCTCCC
GCTCGGGGGACGTGCTGGCCAAGAACCCTGTGGTGCGCTCCAAGAGCTACAACACGCCTCTGCTGAACCCCGTGC
AGGAGCACGAGGCGGAGGGCGCGGCGGCCGGCGGTACCAGCATCCGCTGGCACTCTGTGTCGGAGATGACGTCCT
GCCCCGAGCCTCAGGGCTTCTCCGACCCGCCCGGCCAGGGCCCCACCGGGACCTTCAGGTCCTCCCCGGCGCCCC
ACTCAGGGCCCTGCCCCAGCAGACTGTACCCCACGACCCAGCCCCCTGAGCAGGGCTTGGATCCCACCCGCAGCT
CCCTGCCCCGCTCCAGCCCGGAGAACCTGGTGGACCAGATCCTGGAGTCCGTGGACTCGGATTCTGAAGGGATTT
TCATTGACTTTGGCCGGGGCCGGGGCTCTGGCATGTCCGACTTGGAGGGCTCTGGGGGCCGGCAGAGTGTCGTG**T**
GAGGCCTCACAGCTGGCCTTGAGTTTTTACTGACACGTCCCTGTGTGCGGGGGTGTCCATGTGGCGTGTGTGTGA
GTGAGACTTTTTTACTGCGTCCCGTCCCGCCAGCCCTGTCGGCCTCGTCACTGGCCTTGGTCACTTTGTATTTCT
GTCTTGGTTGGAAATACCATCAGCCTTCCTTGCTCGGCCCAGGTCTGTTTCAGGCATCTGAGTCAGCGTTTACCC
AGGGGCCGGGCCAGAGACGGGGGCCGGCCGCTCGCTCCCACGCTCCTCCTGCCCCAGCCCTCTGGTGTCCACACC
TGCCCACAGAGAATGTAAACCCAGTGGGCTCTGCCCACGCCGGGCCCCAAAGTGACCAGACTCCAGCACACCTGT
CTCCTCCTGCCTGGGGTGGCCATGGGGATGGAAGGGGGTGGAATAAAACCTGTCAACCTGAAAAAAAAAAAAAAA
AAAAAA

FIGURE 1044

MAPMPTGQKLLLDSLAETWDFFFSDVLPMLQAIFYPVQGKEPSVRQLALLHFRNAITLSVKLEDALARAHARVPPA
IVQMLLVLQGVHESRGVTEDYLRLETLVQKVVSPYLGTYGLHSSEGPFTHSCILEKRLLRRSRSGDVLAKNPVVR
SKSYNTPLLNPVQEHEAEGAAAGGTSIRWHSVSEMTSCPEPQGFSDPPGQGPTGTFRSSPAPHSGPCPSRLYPTT
QPPEQGLDPTRSSLPRSSPENLVDQILESVDSDSEGIFIDFGRGRGSGMSDLEGSGGRQSVV

FIGURE 1045

TGTCAAAAGCCTGCACACGAGACCCCCGTGGGCCAGGACTGACTTCCTCCCCACACAGGGCTGGGCGGGGCAAGC
AGGAAGGAGCCTGTTACAGTCAAGGTGACGCATCCTTGCCGGGCCAGCCCGAACAGCAGCTGGGTCGGCAAGCGA
CAGGAGCACGGGTCATCTTTTCCCCAGAGGCGTCGGA**ATG**GACCTGTGCCACCCAGAGCCCGCGGAGCTGAGCAG
CGGGGAGACGGAAGAGTTACAGAGGATCAAGTGGCACCGAAAGCAGCTCCTGGAGGACATCCAGAAGCTGAAGGA
TGAGATTGCAGATGTGTTTGCCCAAATCGACTGCTTCGAGAGTGCGGAGGAGAGCCGGATGGCCCAGAAGGAGAA
GGAGCTGTGTATTGGGCGCAAGAAGTTCAACATGGACCCCGCCAAGGGTATCCAGTATTTCATTGAGCACAAGCT
GCTGACCCCTGACGTCCAGGACATTGCACGGTTCCTGTATAAAGGCGAGGGCCTCAACAAGACAGCCATTGGTAC
CTACCTGGGGGAGAGGGATCCCATCAACCTGCAGGTCCTCCAGGCCTTCGTGGACTGCCACGAGTTCGCCAACCT
CAACCTCGTCCAGGCCCTCAGGCAGTTCCTGTGGAGCTTCCGGCTGCCGGGCGAGGCCCAGAAGATAGACCGGAT
GATGGAGGCCTTTGCCACTCGATACTGCCTCTGCAACCCAGGCGTCTTCCAGTCCACAGACACCTGCTACGTGTT
GTCCTTCTCCATCATCATGCTCAACACCAGCCTCCACAATCCCAACGTCCGGGACAGGCCGCCTTTCGAGCGCTT
TGTGTCCATGAACCGCGGCATCAACAATGGTAGCGACCTGCCCGAGGACCAGCTGCGGAACCTCTTCGACAGCAT
CAAGAGTGAGCCATTCTCCATCCCTGAGGACGACGGCAATGACCTCACTCACACCTTCTTCAATCCAGACCGGGA
GGGTTGGCTGCTCAAGCTAGGGGGCCGCGTGAAGACGTGGAAACGGCGCTGGTTCATCCTGACCGACAACTGCCT
CTACTACTTCGAGTTCACCACTGACAAGGAGCCACGGGGAATTATACCTCTTGAGAACCTCTCGGTGCAGAAGGT
GGATGACCCCAAGAAGCCATTCTGCCTGGAGCTCTACAACCCTAGCTGCCGAGGCCAGAAAATCAAGGCCTGCAA
GACCGATGGCGACGGCAGGGTGGTGGAGGGCAAGCACGAATCGTACCGCATCTCAGCCACCAGTGCCGAGGAACG
TGACCAGTGGATCGAGTCCATCCGAGCCAGCATCACCCGTGTCCCCTTCTACGACCTGGTCTCTACTCGGAAGAA
GAAGATTGCCAGCAAGCAG**TGA**GATTCCTGGAGGTGGCACTGGGGGCTGGTCACCCTGAGAGTCCCATCGCCTGC
AGCACCTGGAGACCCACCTCCCACCCCAGTGCACTCTTTTGGGCCACAGACATCATTGCTGTTCCCCGTTACCTC
GAGCTGACTCTAGAGGGGAAGGCAGAGCTCAGGAGGGTGGGTGGGAGCTGCAGTGGGCTCAGAGTCCAGCAATGA
GGCCCCCTGGCCTGGGCACCCAGCTGCAGGCCCCTGCCCTACGTGCACTACAGGAAGGGGTGAGGAGAGCAGCCA
GAGGAAAACCAGCCCCAGAATGCTGCAACTTCTCTTCTCTCTGGACTTCGGTGTCCTCGGCTCTGAAGGCGCTCT
CTGCACTTAGATGCTGTCAGCCCTCAACGTAGGAGGGGCCGTGGGGTCCCTAAGTGATTCTTCTCCCTGGCAAGG
CTCTTCCTTTTCAGGGATATCTCTGCCAACCCTTCCCCTGTCCTCGGGTTGGGCTTGGCCCTCTCTGCCTGAGAG
AGCTCAGCACACACAGCTCAGACCCACGGACAGGACCCCGGGACAGAACCCCGGGAGCACTGCCCTAGGAGCC
TGGACCCCACGAGCTCAGTCCCAGCTCTGCCTCTGACTCGCTGTGTACCCTCTGCCAAGTCATGCCCATTCTCTA
GTTCTTGCAAAACTGCAGTGTTTGGACTAGAAACGTATTGGCCCCTGCTAGCCCTGTGCTCCAGCTTCCAGCTGG
AGATGGCAGCCGTTATTTGCGGAGCCCAGGCTGACTCCGGATTCAACGTTGCTGGGGAGAGAAAAGCAGTATAGA
CTCCACCTTCCAGGATGTCCATTTCGGGGAGAGGAGCAGGTGGGACCCTCAAGAAAATGACGGAGAACATCCCAG
ACAGATGGGACTCAAGCAGGATGGGTGCTATATCCAAGAAGCCAAGAAGGGAGAGTTTCGTGCACTGTGGTTAAC
AGGAGGGCCGCCTGGAGGCAGTGGCTGAGCCAGAAAGTAACACAGAGCTCATGCTTGGAGAGATAGAGTCTTGGC
CATGGCTTTCCTGCAAGACCACTGACGAGCAGTCCATGGTGATAAAGGGCAGCCCGGCGGGTCCCAGCATCTCG
AGACCCTCTGCAGAAGTATTATCAGAGTAGAGCTGACTTCCAGTACCCGGGCAGCCAGCTCTGTCTCCAGGGAGG
CCTGGCCTGGAGGAGGAGTCCACTAACAGGAAACACTTCTCACCCCCTCACACAGGCCCAGGGGAGCCCCTGGAG
GGAAATTCCTTGGCAGGGGAACAGGAAATGTGGTCGCCTCTGCCCCACTGCCAGCCTGAGTGGGCAAGGAAGCAG
GTGGATCCCCCAGAAGGAACCGCAGCTCGCGAGGCACCTCTCCTCGTCCCCACCCACCCCCACATTTGCACACCT
TCCACAGGGTCAGGATGGAGTAGCTGCCTTGCGAGGTGGTGAGACTCCTGTCTCTGGAGGTCTGCAAGCACTGGT
AGTGATATTGCAGCAGACAAGGTCTGGGTTGGGCGTCTGCAGGAGGAGACCTTGTGGGACATCTGAGGACATCCG
CAGATTCTTGTCAGCCTGTGAACTAGGCCCTGCCTCTGTCACCTCATTGGTCCATGAAGGAGCAGCCAGGGGTGG
TGGAAGGAGCACTGGGCTAGGGGTCAGGGGTCAGAGATTCTGTCCTGCTCCTGGGATGCACTGGCTACTCCCTTA
GTCTACTCCCTTCCCCTCTCTGGTCCTCAGCTTCCTCCATCATGGAGGAGATGGGATCATGGATTTTCTGGGCAT
AAGTGGCTGTTCTGGGAGTCATTCCAAAGAGAGAATAAAACTCCTGATCCAAAAAAAAAAAAAAAAAAAAA

FIGURE 1046

MDLCHPEPAELSSGETEELQRIKWHRKQLLEDIQKLKDEIADVFAQIDCFESAEESRMAQKEKELCIGRKKFNMD
PAKGIQYFIEHKLLTPDVQDIARFLYKGEGLNKTAIGTYLGERDPINLQVLQAFVDCHEFANLNLVQALRQFLWS
FRLPGEAQKIDRMMEAFATRYCLCNPGVFQSTDTCYVLSFSIIMLNTSLHNPNVRDRPPFERFVSMNRGINNGSD
LPEDQLRNLFDSIKSEPFSIPEDDGNDLTHTFFNPDREGWLLKLGGRVKTWKRRWFILTDNCLYYFEFTTDKEPR
GIIPLENLSVQKVDDPKKPFCLELYNPSCRGQKIKACKTDGDGRVVEGKHESYRISATSAEERDQWIESIRASIT
RVPFYDLVSTRKKKIASKQ

FIGURE 1047

GTGTTTTCTGCGTGAGAGGAAAAG**ATG**CTAGAACCACAGGAGAATGGCGTGATTGACCTACCAGATTATGAGCAT
GTAGAAGATGAAACTTTTCCTCCTTTCCCACCTCCAGCCTCTCCAGAGAGACAAGATGGTGAAGGAACTGAGCCT
GATGAAGAGTCAGGAAATGGAGCACCTGTTCCTGTACCTCCAAAGAGAACAGTTAAAAGAAATATACCCAAGCTG
GATGCTCAGAGATTAATTTCAGAGAGAGGACTTCCAGCCTTAAGGCATGTATTTGATAAGGCAAAATTCAAAGGT
AAAGGTCATGAGGCTGAAGACTTGAAGATGCTAATCAGACACATGGAGCACTGGGCACATAGGCTATTCCCTAAA
CTGCAGTTTGAGGATTTTATTGACAGAGTTGAATACCTGGGAAGTAAAAAGGAAGTTCAGACCTGTTTAAAACGA
ATTCGACTTGATCTCCCTATTTTACATGAAGATTTGTTAGCAATAATGATGAAGTTGCGGAGAATAATGAACAT
GATGTCACTTCTACTGAATTAGATCCCTTTCTGACAAACTTATCTGAAAGTGAGATGTTTGCTTCTGAGTTAAGT
AGAAGCCTAACAGAAGAGCAACAACGAAGAATTGAGAGAAATAAACAACTGGCCTTGGAAAGAAGGCAGGCAAAG
CTGCTGAGTAATAGTCAGACCCTAGGAAATGATATGTTAATGAATACACCCAGGGCACACACGGTTGAAGAGGTT
AATACTGATGAGGATCAAAAGGAGGAGTCAAATGGATTAAACGAAGACATTCTGGACAATCCATGTAATGATGCT
ATTGCCAATACTTTAAATGAAGAGGAAACACTGCTGGACCAGTCTTTTAAAAATGTGCAACAGCAACTTGATGCT
ACATCCAGAAATATTACTGAAGCTAGA**TAA**GTTTCCATTAAGAGAAAATGTATCTGTTAAGTCATCGTCCTGCAA
GCTTGGCGTTACTATGTATTTTTTCTTCTTGGAGTGAAAATCCTTAGATAGTAAAACTGTTATAGATTATTGTTT
AAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 1048

MLEPQENGVIDLPDYEHVEDETFPPFPPPASPERQDGEGTEPDEESGNGAPVPVPPKRTVKRNIPKLDAQRLISE
RGLPALRHVFDKAKFKGKGHEAEDLKMLIRHMEHWAHRLFPKLQFEDFIDRVEYLGSKKEVQTCLKRIRLDLPIL
HEDFVSNNDEVAENNEHDVTSTELDPFLTNLSESEMFASELSRSLTEEQQRRIERNKQLALERRQAKLLSNSQTL
GNDMLMNTPRAHTVEEVNTDEDQKEESNGLNEDILDNPCNDAIANTLNEEETLLDQSFKNVQQQLDATSRNITEA
R

FIGURE 1049A

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CGCTCGGAAAGTTCAGCATGCAGGAAGTTTGGGGAGAGCTCGGCGATTAGCACAGCGACCCGGGCCAGCGCAGGG
CGAGCGCAGGCGGCGAGAGCGCAGGGCGGCGCGGCGTCGGTCCCGGGAGCAGAACCCGGCTTTTTCTTGGAGCGA
CGCTGTCTCTAGTCGCTGATCCCAA**ATG**CACCGGCTCATCTTTGTCTACACTCTAATCTGCGCAAACTTTTGCAG
CTGTCGGGACACTTCTGCAACCCCGCAGAGCGCATCCATCAAAGCTTTGCGCAACGCCAACCTCAGGCGAGATGA
GAGCAATCACCTCACAGACTTGTACCGAAGAGATGAGACCATCCAGGTGAAAGGAAACGGCTACGTGCAGAGTCC
TAGATTCCCGAACAGCTACCCCAGGAACCTGCTCCTGACATGGCGGCTTCACTCTCAGGAGAATACACGGATACA
GCTAGTGTTTGACAATCAGTTTGGATTAGAGGAAGCAGAAATGATATCTGTAGGTATGATTTTGTGGAAGTTGA
AGATATATCCGAAACCAGTACCATTATTAGAGGACGATGGTGTGGACACAAGGAAGTTCCTCCAAGGATAAAATC
AAGAACGAACCAAATTAAAATCACATTCAAGTCCGATGACTACTTTGTGGCTAAACCTGGATTCAAGATTTATTA
TTCTTTGCTGGAAGATTTCCAACCCGCAGCAGCTTCAGAGACCAACTGGAATCTGTCACAAGCTCTATTTCAGG
GGTATCCTATAACTCTCCATCAGTAACGGATCCCACTCTGATTGCGGATGCTCTGGACAAAAAAATTGCAGAATT
TGATACAGTGGAAGATCTGCTCAAGTACTTCAATCCAGAGTCATGGCAAGAAGATCTTGAGAATATGTATCTGGA
CACCCCTCGGTATCGAGGCAGGTCATACCATGACCGGAAGTCAAAAGTTGACCTGGATAGGCTCAATGATGATGC
CAAGCGTTACAGTTGCACTCCCAGGAATTACTCGGTCAATATAAGAGAAGAGCTGAAGTTGGCCAATGTGGTCTT
CTTTCCACGTTGCCTCCTCGTGCAGCGCTGTGGAGGAAATTGTGGCTGTGGAACTGTCAACTGGAGGTCCTGCAC
ATGCAATTCAGGGAAAACCGTGAAAAAGTATCATGAGGTATTACAGTTTGAGCCTGGCCACATCAAGAGGAGGGG
TAGAGCTAAGACCATGGCTCTAGTTGACATCCAGTTGGATCACCATGAACGATGTGATTGTATCTGCAGCTCAAG
ACCACCTCGA**TAA**GAGAATGTGCACATCCTTACATTAAGCCTGAAAGAACCTTTAGTTTAAGGAGGGTGAGATAA
GAGACCCTTTTCCTACCAGCAACCAAACTTACTACTAGCCTGCAATGCAATGAACACAAGTGGTTGCTGAGTCTC
AGCCTTGCTTTGTTAATGCCATGGCAAGTAGAAAGGTATATCATCAACTTCTATACCTAAGAATATAGGATTGCA
TTTAATAATAGTGTTTGAGGTTATATATGCACAAACACACACAGAAATATATTCATGTCTATGTGTATATAGATC
AAATGTTTTTTTTGGTATATATAACCAGGTACACCAGAGCTTACATATGTTTGAGTTAGACTCTTAAAATCCTTT
GCCAAAATAAGGGATGGTCAAATATATGAAACATGTCTTTAGAAAATTTAGGAGATAAATTTATTTTTAAATTTT
GAAACACAAAACAATTTTGAATCTTGCTCTCTTAAAGAAAGCATCTTGTATATTAAAAATCAAAAGATGAGGCTT
TCTTACATATACATCTTAGTTGATTATTAAAAAAGGAAAAATATGGTTTCCAGAGAAAAGGCCAATACCTAAGCA
TTTTTTCCATGAGAAGCACTGCATACTTACCTATGTGGACTATAATAACCTGTCTCCAAAACCATGCCATAATAA
TATAAGTGCTTTAGAAATTAAATCATTGTGTTTTTATGCATTTGCTGAGGCATGCTTATTCATTTAACACCTA
TCTCAAAAACTTACTTAGAAGGTTTTTTATTATAGTCCTACAAAAGACAATGTATAAGCTGTAACAGAATTTTGA
ATTGTTTTTCTTTGCAAAACCCCTCCACAAAAGCAAATCCTTTCAAGAATGGCATGGGCATTCTGTATGAACCTT
TCCAGATGGTGTTCAGTGAAAGATGTGGGTAGTTGAGAACTTAAAAAGTGAACATTGAAACATCGACGTAACTGG
AAATTAGGTGGGATATTTGATAGGATCCATATCTAATAATGGATTCGAACTCTCCAAACTACACCAATTAATTTA
ATGTATCTTGCTTTTGTGTTCCCGTCTTTTTGAAATATAGACATGGATTTATAATGGCATTTTATATTTGGCAGG
CCATCATAGATTATTTACAACCTAAAAGCTTTTGTGTATCAAAAAAATCACATTTTATTAATGTAAATTTCTAAT
CGTATACTTGCTCACTGTTCTGATTTCCTGTTTCTGAACCAAGTAAAATCAGTCCTAGAGGCTATGGTTCTTAAT
CTATGGAGCTTGCTTTAAGAAGCCAGTTGTCAATTGTGGTAACACAAGTTTGGCCCTGCTGTCCTACTGTTTAAT
AGAAAACTGTTTTACATTGGTTAATGGTATTTAGAGTAATTTTTTCTCTCTGCCTCCTTTGTGTCTGTTTTAAAG
GAGACTAACTCCAGGAGTAGGAAATGATTCATCATCCTCCAAAGCAAGAGGCTTAAGAGAGAAACACCGAAATTC
AGATAGCTCAGGGACTGCTAACAGAGAACTACATTTTTTCTTATTGCCTTGAAAGTTAAAAGGAAAGCAGATTTC
TTCAGTGACTTTGTGGTCCTACTAACTACAACCAGTTTGGGTGACAGGGCTGGTAAAGTCCCAGTGTTAGATGAG
TGACCTAAATATACTTAGATTTCTAAGTATGGTGCTCTCAGGTCCAAGTTCAACTATTCTTAAGCAGTGCAATTC
TTCCCAGTTATTTGAGATGAAAGATCTCTGCTTATTGAAGATGTACCTTCTAAAACTTTCCTAAAAGTGTCTGAT
GTTTTTACTCAAGAGGGGAGTGGTAAAATTAAATACTCTATTGTTCAATTCTCTAAAATCCCAGAACACAATCAG
AAATAGCTCAGGCAGACACTAATAATTAAGAACGCTCTTCCTCTTCATAACTGCTTTGCAAGTTTCCTGTGAAAA
CATCAGTTTCCTGTACCAAAGTCAAAATGAACGTTACATCACTCTAACCTGAACAGCTCACAATGTAGCTGTAAA
TATAAAAAATGAGAGTGTTCTACCCAGTTTTCAATAAACCTTCCAGGCTGCAATAACCAGCAAGGTTTTCAGTTA
AAGCCCTATCTGCACTTTTTATTTATTAGCTGAAATGTAAGCAGGCATATTCACTCACTTTTCTTTGCCTTTCCT
GAGAGTTTTATTAAAACTTCTCCCTTGGTTACCTGTTATCTTTTGCACTTCTAACATGTAGCCAATAAATCTATT
TGATAGCCATCAAAGGAATAAAAAGCTGGCCGTACAAATTACATTTCAAAACAAACCCTAATAAATCCACATTTC
```

FIGURE 1049B

CGCATGGCTCATTCACCTGGAATAATGCCTTTTATTGAATATGTTCTTATAGGGCAAAACACTTTCATAAGTAGA
GTTTTTTATGTTTTTTGTCATATCGGTAACATGCAGCTTTTTCCTCTCATAGCATTTTCTATAGCGAATGTAATA
TGCCTCTTATCTTCATGAAAAATAAATATTGCTTTTGAACAAAAAAAAAAAAAAAAAAA

FIGURE 1050

MHRLIFVYTLICANFCSCRDTSATPQSASIKALRNANLRRDESNHLTDLYRRDETIQVKGNGYVQSPRFPNSYPR
NLLLTWRLHSQENTRIQLVFDNQFGLEEAENDICRYDFVEVEDISETSTIIRGRWCGHKEVPPRIKSRTNQIKIT
FKSDDYFVAKPGFKIYYSLLEDFQPAAASETNWESVTSSISGVSYNSPSVTDPTLIADALDKKIAEFDTVEDLLK
YFNPESWQEDLENMYLDTPRYRGRSYHDRKSKVDLDRLNDDAKRYSCTPRNYSVNIREELKLANVVFFPRCLLVQ
RCGGNCGCGTVNWRSCTCNSGKTVKKYHEVLQFEPGHIKRRGRAKTMALVDIQLDHHERCDCICSSRPPR

FIGURE 1051

AGTCGCTGTTTGGGACGCTGGGTGTGCGGTGTTCTGTCTCCGCTCCCGTTTCGCTGTCACAGCCCGTTCCTTCCC
GGAGCCCGGGACAGGCTGGGCGCGCGCCCGTGTGAGTGAGCGGGACTCAGGGCAGAAGTGTCCCCTCACTGCGTT
TTTTTTTCCTTTTATCCAAAGAACGGGGCAGTTAGTACGCTTGCCTTCCTGTCGCCCGGTTGGGAGCGGGGTTGG
TGTGCGGAGTGGTTCGCCTTTTTTTCTTTAGAACTTGTGAGCCTTTTTTTTTTTTTTTTTCTTTCCTTTTTTT
AGGCTCAGTGCTGTCCGGGCTGGTTTGCCCGGTCCCTGACTAACGGCTTTCTGCCCCTTCTCTCGCCACCCCTGC
CCAAGGTCGCCCCTCTGCCTTCGCCCCTGTCCCGGGAGGGTGGGAAGCTTTGACCCCGCCCTGCCCACTCGCGTC
TCCGCAGCCGTAGCCGCGCCTGTCCCAAT**ATG**AATAGGGTCAACGACCCACTTATTTTTATAAGAGATATTAAGC
CCGGACTGAAAAACTTAAATGTCGTCTTTATTGTCCTGGAGATAGGACGCGTGACCAAAACCAAAGACGGCCATG
AAGTGAGATCGTGCAAAGTAGCAGATAAAACGGGCAGCATCACTATTTCCGTGTGGGATGAGATCGGAGGTCTTA
TACAGCCAGGGGATATTATTCGGTTGACCAGAGGGTATGCATCCATGTGGAAAGGATGTCTGACACTTTATACTG
GAAGGGGTGGTGAACTTCAAAAAATTGGGGATCTAGGTGCGGTGCAGGCAGCCGCAATGCGAGATTCCATACACT
ACTACCCTGGTAATGATCTCCACCCTGACCTGGAGGAGCCATCCTCTCTAGGGGTG**TAA**GATTTTGTATGGTTTA
TTCAGAAGTGCCAAATTTCAGTGAACCCAACCCAGATTATCGAGGACAGCAGAACAAAGGGGCACAGAGTGAACA
GAAGAATAATTCCATGAATAGTAATATGGGTACAGGTACATTGGACCAGTGGGAAATGGTGTTCACACTGGCCC
TGAATCAAGGGAACACCAGTTTTCACATGCTGGCAGAAGCAATGGCCGGGGACTTATAAATCCACAACTACAAGG
AACAGCTAGTAATCAAACAGTGATGACCACAATAAGTAATGGCAGGGACCCTCGGAGAGCCTTTAAAAGATGACC
TATGCTAAATACTCATGTGTAGTTTTTATACTACATGCCCTACTTGAACACTTATTGCACTTTTATTTATTGTTA
ACTGTGAAAAGTACGTCCTTTATTGGGTTTCCTTTTATATTCTTGGTTTGTTAAGAAGAATGGTTTGTTTTTATA
GCAAAACTGTTAAGCTGCTCGAGTCTCCTGTTGAAGAATGGGAACACTGAAAAGTAGGGGCATTTATTTTTAGAG
TAAAAAGATTATTGGATAGCCTTTAAAAAACCTGCACCCATTCATGGGTGAGTTACTTAAGACATCAGCTTTAT
AGCCTCTATGAGTCTATCTTCTGTATAAGTTTTGTAATATTTAACATAAGGCTTAATGGGAGATGTTCTTTTGTC
TTGTATTCAGATATTGCCAACTAAAGCAATAACCATCAAAAAACACAAGAACTTGTCAATGCTAGCAGTAATTTT
TGAGTGTTTGTGGCTCTCGGAATGATTGACTTCGTTCAGTGACTACTATTAAGATTTTCCAAGGACTGACTCATC
CCAAATTTTTGTTGTATTACCAAAAAAACAGATTCCTTATCAGAATTTGGAATAGAATGTGATCTCTATTGCAAC
AAGTAATTTTAAAAGAAAGCTACATTTATTTTAGAGTAGTGCTCCTAACATGTATTATCAACTTTGTGGATTACA
TTGGAGGAAAATTTAAAACTGGGGCCTTGAATATTTATTTTTTGAAACTACCATGTTAAATACTGAAGTATAATT
TGGGGGAGTTATAAAGTTATGATAAACATTCATCTGATTATTTAAACAATAGTTGTGGTAGATAAACATACTGG
AGGTGAGTAAAATTGAATTCATATAGTAACATGCAGTCTGAAGTCCTAGTTACTTAATAGGTACTCAGCCTGGAG
TGAAAATCCTGGGTACTGACTTTGAGAGGAGTGAGTGTGCATGTTGTCAAAGTTTCTGAACACAGTTCACATAGC
CTTATTAGCAAAAGTTTTAAGAAATGGCTCTATCAAAGAAGCAATTGCAGCTTTATTCAGAAATATAAAAGTGGA
ATTTATGTACATGTCATAAGTGGTACCCACTTCCCCTTTTTACTGTAGGGTGGATAACTCTTAGGATTTAACTCT
TTGAATATTATCTCTTGAATAAAGCATGTGTTAATGTTAACAAACCTACGTAATTTTTGCCCTTTCAATGACTTA
CAGTGGAGAGCCAGTACATCTTAACTACTGTTGTAGTGATGGTATCAACCTCATGGTTACTTAGCTCTGCATTTG
TTGCTTTGTTTTTTTTCCACTTCAAATCACAAAATAAGTAGATTTTGTTTTCTGAAAACTCCATAGCATTTGAAT
ACAAAAAGTTGTGCCAGATTGTTTGCCCTAATTCACTGTGTTTAACAAATATTTCAGTACACACTATGTATTAGG
CACTGTGTGGAAAGTGTTAAGGGGTAGACAAGATACCGAATAATCTCCACAAGTTTATTTGTGGTCTATAGTACT
TTTGTAACTGGGGTTACAAAAATTATAGAAATTTTTTTCCTTTGTTCATATGCATATTCATGATTATAATTTGGC
TTTGTTTGTGATTAATGTTTTCTTAAGATTTTCACATTATAGAATACCTCAAAAGAAGTTGTCTAAGGACTGGGA
TAGAGAGTATGTTTCATAAAATTGTAGATGTTTAGAATTTTTAAAAACCCTACAAATTAGTATATGATTGTTTTA
TATAAGTAAGATAGGAGCAACACTTTAAATTATTTGTGGGAGAATACAGCATTAAAGGTGATTTTAAAAGAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 1052

MNRVNDPLIFIRDIKPGLKNLNVVFIVLEIGRVTKTKDGHEVRSCKVADKTGSITISVWDEIGGLIQPGDIIRLT
RGYASMWKGCLTLYTGRGGELQKIGDLGAVQAAAMRDSIHYYPGNDLHPDLEEPSSLGV

FIGURE 1053

ATTCCCCAACCTGATAGCCCTCCGCGACGCATTACGCACCGCGGACAGCTGGAGAGGCCGAGGCGCTCTCGCTTT
GATTTCGGCGCCTCCGCCCTCGCGGGGAGAGATTGGCTGCGGCCGCGGGACGGGGTAGTGAGCGCGTCACTTCCT
GCCGCTGCCAGGCGCGTCCTCCCGCGCGCT**ATG**ACGGCCAGCGCACAGCCGCGCGGGCGGCGGCCAGGAGTCGGA
GTCGGAGTCGTGGTGACCAGCTGCAAGCATCCGCGTTGCGTCCTCCTGGGGAAGAGGAAAGGCTCGGTTGGAGCT
GGCAGTTTCCAACTCCCTGGAGGTCATCTGGAGTTCGGTGAAACCTGGGAAGAATGTGCTCAAAGGGAAACCTGG
GAAGAAGCAGCTCTTCACCTGAAAAATGTTCACTTTGCCTCAGTTGTGAATTCTTTCATTGAGAAGGAGAATTAC
CATTATGTTACTATATTAATGAAAGGAGAAGTGGATGTGACTCATGATTCAGAACCAAAGAATGTAGAGCCTGAA
AAAAATGAAAGTTGGGAGTGGGTTCCTTGGGAAGAACTACCTCCCCTGGACCAGCTTTTCTGGGGACTGCGTTGT
TTAAAAGAACAAGGCTATGATCCATTTAAAGAAGATCTGAACCATCTGGTGGGATACAAAGGAAATCATCTC**TAG**

GTGGCCGAGAAGATTTGATTTTCTTTAAAAAGACAAGAATAAGGTCTGGTTAGGGAATGAAAAATGTATACATTT
CGGAACAACTCCATTTTATCTAAAAAAGTTCTTGTGATTGCCAGTTTATTTGCAGTCTCTTAATGTATCCCCCAC
TCTTTCAGCCAGTACTTGAGAAAATTTTTCTGAAATATGTCATTGAATTGTATTCCAGACACAGAATACATGATA
AATACTGATATTATGGGTAATCTGCTTTCCATATTTACCTATGATATTTACTGTGCAGTTGTCATTACTAGCTT
GCATGGAGTAGGATGCAGTCAAATTTGCCTTAGTGTTTCTGTTCAAATAGAGACCTGAATTCAAATATTGTAGTT
TAGGTTCAAACAGAGTATGGCTGTTGCAAAATTTACCAAATTTGTTGATTACCTCTTTTATTAAAGAAATGTTGG
GGAGAGGGTAATATATTGTGACAATTTTTGCAACTTACAGGGAATAGGACAGGTCATTAGGGTGTATTTCCCAGG
TTTCCAATTGAGAATCTAAACCAAGAGAAGTGAGACAAACCATCTAATATCTGTATCATGCTATTAATAGGCTGT
GATGTTGAGTTTCTCACTTACTCTTTCTGAGGTCCAGGGTCCTTATATGAAGAGATTCATATATATGAAGAGATT
CGTCTAGAGCAGTGGTTGTCAAAGTGTGGTCTGGGGGGGCCTCAAGAGCCTTTCAAGGGTATTCTAGGTCAAAGC
TGTTTTTATAACACTAAGACATTATTTCACTATTTATAGCTTTTCCTTTTTTTATTTGAGAAGGAGTCTTGCTC
TGTTGCCCACATTGGAGTGCAGTGGCACGATCTCAGCTCATTGCAGCCTCCGCCACCTGGGTTCAAGCAATTCTC
CTACCTCAGCTTCCCGAGTAGCTGGGATTATAGGCACCCACCACCACACCTGGCTAATTTTTGTATTTTTAGTGG
AGACGGGGTTTCACCATGTTGGCCAGGCTGGTCTGGAACTCCTGAGCTCAAGTGATCTGCCCATCTCAGCCTCCC
AAAGTGCTGGGATTACAGGTATGAGCCACAACGCCCAGCCATCATTTATCTTTTCACTCATTTTTTCATGAGTA
TGCAGAGGAGTTTTCAAGAGGCTATCTGGTGTGATATTGTAATAGGCTGAATGCAAAAGCAGATACAAGATTCCA
GCTTTCGTCTGTCATCAGACATTGAAGAGATTTGGAGAAATGTAAAGCAGCAGTACTCTTCTCACTAATTTTTAT
TGTGGTTAGTTAGAAAAATGGTTATTTTTAGTGGGTTTTAATATGTGAAAAAAATAAAATTAGCTATTTGCC

FIGURE 1054

MTASAQPRGRRPGVGVGVVVTSCKHPRCVLLGKRKGSVGAGSFQLPGGHLEFGETWEECAQRETWEEAALHLKNV
HFASVVNSFIEKENYHYVTILMKGEVDVTHDSEPKNVEPEKNESWEWVPWEELPPLDQLFWGLRCLKEQGYDPFK
EDLNHLVGYKGNHL

FIGURE 1055

GCCCGCCCGCGCCCCGACCAGCCCGGCCTCGGGCAGCCACTCACCGGTGTCCCCGTCCGCGTCCTTCCTCCCCGG
GTCCCGGCC**ATG**GCGCTGAGTGAACCCATCCTGCCGTCCTTCTCCACTTTCGCCAGCCCGTGCCGCGAGCGCGGC
CTGCAGGAGCGCTGGCCGCGCGCCGAACCCGAGTCCGGCGGCACCGACGACGACCTCAACAGCGTGCTGGACTTC
ATCCTGTCCATGGGGCTGGATGGCCTGGGCGCCGAGGCCGCCCCGGAGCCGCCGCCGCCGCCCCCGCCGCCTGCG
TTCTATTACCCCGAACCCGGCGCGCCCCCGCCCTACAGCGCCCCCGCGGGTGGCCTGGTGTCTGAGCTGCTGCGA
CCCGAGCTGGATGCGCCGCTGGGGCCCGCACTGCACGGCCGCTTTCTGCTGGCGCCGCCCGGCCGCCTGGTCAAG
GCCGAGCCCCCTGAAGCGGACGGCGGCGGCGGCTACGGCTGCGCCCCCGGGCTGACCCGTGGACCGCGCGGCCTC
AAGCGCGAGGGCGCCCCGGGCCCGGCGGCTTCGTGCATGCGAGGTCCCGGGGGCCGCCCCCCGCCGCCGCCCGAC
ACACCGCCGCTCAGCCCCGACGGCCCCGCGCGCCTGCCCGCGCCCGGTCCGCGCGCCTCCTTCCCGCCGCCTTTC
GGTGGCCCTGGTTTCGGCGCGCCCGGGCCCGGCCTGCATTACGCGCCGCCTGCGCCCCCAGCCTTCGGTCTCTTC
GACGACGCGGCCGCCGCCGCGGCAGCCCTGGGCCTGGCGCCCCCCGCCGCCCGCGGTCTCCTCACGCCGCCTGCG
TCCCCGCTGGAGCTGCTGGAGGCCAAGCCAAAGCGCGGCCGCCGCTCTTGGCCCCGCAAACGCACCGCCACTCAC
ACCTGCAGCTACGCGGGCTGCGGCAAGACCTACACCAAGAGTTCGCATCTGAAGGCGCATCTGCGCACGCACACA
GGTGAGAAGCCCTACCACTGCAACTGGGACGGCTGCGGCTGGAAGTTTGCGCGCTCAGACGAGCTCACGCGCCAC
TACCGAAAGCACACGGGCCACCGGCCATTCCAGTGCCATCTGTGCGATCGTGCCTTTTCGCGCTCCGATCACCTG
GCGCTGCACATGAAACGGCACATG**TAG**CCGGGACGCCCCCGCCCACCTGCGGCGGGCCGTGGCGGGTCCCACGCG
CCGGGCGCGGCCCCCTCCCAAACTGTGACTGGTATTTATTGGACCCAGAGAACCGGGCCGGGCACAGCGTGGCTA
CAGAGGGTCTCCCTCGATGACGACGACGACGACGCCACCACCCCAGCCCCCGTCTGTGACTGAAGGCCCGGTGGG
AAAAGACCACGATCCTCCTTGACGAGTTTTGTTTTTCAAAATGGTGCAATAATTTAAGTGGCATCTTCTCTCCCA
CCGGGTCTACACTAGAGGATCGAGGCTTGTGATGCCTTGTGAGAAATAAGGGCCTTAATTTGTACTGTCTGCGGC
ATTTTTTATAATATTGTATATAGTGACTGACAAATATTGTATTACTGTACATAGAGAGACAGGTGGGCATTTTTG
GGCTACCTGGTTCGTTTTTATAAGATTTTGCTGGGTTGGTTTTTTTTTAATTAAAAAGTTTTGCATCTTTT

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FIGURE 1056

MALSEPILPSFSTFASPCRERGLQERWPRAEPESGGTDDDLNSVLDFILSMGLDGLGAEAAPEPPPPPPPPAFYY
PEPGAPPPYSAPAGGLVSELLRPELDAPLGPALHGRFLLAPPGRLVKAEPPEADGGGGYGCAPGLTRGPRGLKRE
GAPGPAASCMRGPGGRPPPPPDTPPLSPDGPARLPAPGPRASFPPPFGGPGFGAPGPGLHYAPPAPPAFGLFDDA
AAAAAALGLAPPAARGLLTPPASPLELLEAKPKRGRRSWPRKRTATHTCSYAGCGKTYTKSSHLKAHLRTHTGEK
PYHCNWDGCGWKFARSDELTRHYRKHTGHRPFQCHLCDRAFSRSDHLALHMKRHM

FIGURE 1057

CGGAATTGGTGGGTTCTTGGTCTCACTGAGTTCTAGAATGAAGCTGCAGACCCTCGCAGTGAGTGTTACAGCTCT
TAAGGCTCTCTGACTGCCACCCCTGCCTGCCTGCCCGGCCCTGCACAAC**ATG**CAGCCCTCCGGCCTCGAGGGTCC
CGGCACGTTTGGTCGGTGGCCTCTGCTGAGTCTGCTGCTCCTGCTGCTGCTGCTCCAGCCTGTAACCTGTGCCTA
CACCACGCCAGGCCCCCCCAGAGCCCTCACCACGCTGGGCGCCCCCAGAGCCCACACCATGCCGGGCACCTACGC
TCCCTCGACCACACTCAGTAGTCCCAGCACCCAGGGCCTGCAAGAGCAGGCACGGGCCCTGATGCGGGACTTCCC
GCTCGTGGACGGCCACAACGACCTGCCCCTGGTCCTAAGGCAGGTTTACCAGAAAGGGCTACAGGATGTTAACCT
GCGCAATTTCAGCTACGGCCAGACCAGCCTGGACAGGCTTAGAGATGGCCTCGTGGGCGCCCAGTTCTGGTCAGC
CTATGTGCCATGCCAGACCCAGGACCGGGATGCCCTGCGCCTCACCCTGGAGCAGATTGACCTCATACGCCGCAT
GTGTGCCTCCTATTCTGAGCTGGAGCTTGTGACCTCGGCTAAAGCTCTGAACGACACTCAGAAATTGGCCTGCCT
CATCGGTGTAGAGGGTGGCCACTCGCTGGACAATAGCCTCTCCATCTTACGTACCTTCTACATGCTGGGAGTGCG
CTACCTGACGCTCACCCACACCTGCAACACACCCTGGGCAGAGAGCTCCGCTAAGGGCGTCCACTCCTTCTACAA
CAACATCAGCGGGCTGACTGACTTTGGTGAGAAGTGGTGGCAGAAATGAACCGCCTGGGCATGATGGTAGACTT
ATCCCATGTCTCAGATGCTGTGGCACGGCGGGCCCTGGAAGTGTCACAGGCACCTGTGATCTTCTCCCACTCGGC
TGCCCGGGGTGTGTGCAACAGTGCTCGGAATGTTCCTGATGACATCCTGCAGCTTCTGAAGAAGAACGGTGGCGT
CGTGATGGTGTCTTTGTCCATGGGAGTAATACAGTGCAACCCATCAGCCAATGTGTCCACTGTGGCAGATCACTT
CGACCACATCAAGGCTGTCATTGGATCCAAGTTCATCGGGATTGGTGGAGATTATGATGGGGCCGGCAAATTCCC
TCAGGGGCTGGAAGACGTGTCCACATACCCGGTCCTGATAGAGGAGTTGCTGAGTCGTGGCTGGAGTGAGGAAGA
GCTTCAGGGTGTCCTTCGTGGAAACCTGCTGCGGGTCTTCAGACAAGTGGAAAAGGTACAGGAAGAAAACAAATG
GCAAAGCCCCTTGGAGGACAAGTTCCCGGATGAGCAGCTGAGCAGTTCCTGCCACTCCGACCTCTCACGTCTGCG
TCAGAGACAGAGTCTGACTTCAGGCCAGGAACTCACTGAGATTCCCATACACTGGACAGCCAAGTTACCAGCCAA
GTGGTCAGTCTCAGAGTCCTCCCCCCACATGGCCCCAGTCCTTGCAGTTGTGGCCACCTTCCCAGTCCTTATTCT
GTGGCTC**TGA**TGACCCAGTTAGTCCTGCCAGATGTCACTGTAGCAAGCCACAGACACCCCACAAAGTTCCCCTGT
TGTGCAGGCACAAATATTTCTTGAAATAAATGTTTTGGACATAGAAAAAA

FIGURE 1058

MQPSGLEGPGTFGRWPLLSLLLLLLLLQPVTCAYTTPGPPRALTTLGAPRAHTMPGTYAPSTTLSSPSTQGLQEQ
ARALMRDFPLVDGHNDLPLVLRQVYQKGLQDVNLRNFSYGQTSLDRLRDGLVGAQFWSAYVPCQTQDRDALRLTL
EQIDLIRRMCASYSELELVTSAKALNDTQKLACLIGVEGGHSLDNSLSILRTFYMLGVRYLTLTHTCNTPWAESS
AKGVHSFYNNISGLTDFGEKVVAEMNRLGMMVDLSHVSDAVARRALEVSQAPVIFSHSAARGVCNSARNVPDDIL
QLLKKNGGVVMVSLSMGVIQCNPSANVSTVADHFDHIKAVIGSKFIGIGGDYDGAGKFPQGLEDVSTYPVLIEEL
LSRGWSEEELQGVLRGNLLRVFRQVEKVQEENKWQSPLEDKFPDEQLSSSCHSDLSRLRQRQSLTSGQELTEIPI
HWTAKLPAKWSVSESSPHMAPVLAVVATFPVLILWL

FIGURE 1059

TATTTTGTCAGATGTGTTGAACCTCGATTAAGATTGCATTATGACATTCTTGAAGACCGAGTTCCATCAGGACTT
ATTGTTGACTACCACAATCTGTTGTCTCAATGTGAGGAGAGTTACAGGAAATTTTTAAATCTGAGAAGCAGTTTG
TCAAATTGTAACTCTGACTCCGAGCAGGAAAATATCTCC**ATG**GTGGAAGGGTTAAAATTGTATTCGGAGATGGAA
CAGTTGAAACAAAAGCTGAAACTCATTGAGAATCCTTTGTTGAGGTATGTGTTTGGTTATCAGAAGAATTCTAAC
ATCCAAGCAAAGGGTGTCCGTTCCAGCGGTCAGAAGATCACTCATGTGGTCTCCTCCACCATGATGGCTGGTCTC
CTGCGGTCCCTGCTTACGGACAGGCTTTGCCAGGAGCCTGGTGAGGAAGAAAGAGAAATTCAGTTCCATAGTGAT
CCATTGTCTGCTATAAATGCCTGCTTCGAAGGTGACACTGTTATTGTTTGTCCTGGCCATTATGTGGTACATGGC
ACTTTCTCCATTGCTGACTCCATTGAGTTGGAAGGATATGGCCTACCAGATGACATTGTGATAGAAAAGAGGGGC
AAAGGCGACACTTTTGTGGACTGCACTGGTGCTGATATTAAAATCTCAGGCATAAGATTTGTTCAGCATGATGCT
GTAGAGGGAATCTTAATTGCTCACCGTGGTAAGACTACGCTGGAAAACTGTGTGCTGCAGTGTGAGACGACCGGA
GTCACAGTGCGGACATCAGCAGAGTTTCTAATGAAGAACTCGGATTTATATGGCGCCAAGGGTGCTGGTATAGAA
ATCTACCCTGGGAGTCAGTGCACCCTGAGTGACAATGGGATCCATCACTGCAAGGAAGGGATCCTCATTAAGGAC
TTCTTAGATGAACATTATGACATTCCCAAGATATCCATGGTGAATAATATAATACATAATAATGAAGGTTATGGT
GTTGTCTTGGTGAAACCTACAATCTTCTCTGACCTGCAAGAAAATGCTGAAGATGGAACTGAAGAAAATAAAGCG
CTTAAAATTCAGACAAGTGGAGAGCCAGATGTGGCTGAAAGAGTGGATCTAGAAGAGCTGATTGAGTGTGCAACT
GGTAAAATGGAGCTTTGTGCAAGAACTGACCCTTCTGAGCAAGTCGAGGGAAATTGTGAAATTGTAAATGAACTA
ATTGCTGCCTCCACACAGAAAGGCCAGATAAAGAAGAAAGGTTGAGTGAACTGGGGATCACGCAAGCTGATGAC
AACTTAATGTCACAGGAGATGTTTGTTGGGATTGTGGGGAACCAGTTCAAGTGGAATGGGAAAGGTAGTTTTGGC
ACÀTTCTTTTC**TGA**CTACAGTGATGTAAGTAGATAGCAAAATACTGGATTTTGCACATGCTGCCCTAAGAATCA
CTGCTGCCATTGTAGTTTGCTGTATTGTCTGTATTTTATATTTGATTATTTGGGCTTGAGTGAAAGGTAGATTTA
TTTCCATTTGCAGGTGTTGCACATAAAACACTCCCTCTTTATAAGAAAAATCATAAATGCATATAAAATAGAAAA
TATTTGGAGATTGCTTATCTGAAAGTCTTGCTTTCTTATACACATGGTTCTCTCATATTAAGCCTGGTGGTTACT
TTTTAGTGTAATTACCTTTAGCACTTCAAAGACGAGGAAGTAAGGAAGGGAATGCAAGACTAGTGCATAAAAATG
CAATAGGTGTCATÀTGTACAGCATTCTTCTTAGAGTTGCCTTTTCATCCCAATTACAGTGAGTCTGATTTCCATC
CTGTATTTGCATAATACTTGTCͭTTAAAATAAAAGCTTTTATGATTGGGAATTTATCTGCCTAATCAGACTTATTA
TTGAGACGTCAATGGGACGCATTTTTCTGTTGAGCTATGCAGTCGTCAAAACAGCGATAGACAGCATAGGAGGTT
TGAAGCAGAAATGAAATGTGTTATTCAGAGCCAATGTTGTACATAGAGCATTTTCACTATTGCTGAATGGGAATG
ATTAAAAACAAGGTATTTTTCGGGCCAGGCGGTGGCTCACGCTTGTAATCGCAGCACTTTGGGAGGCTGAGGCAG
GAGGATCACTTGAGCCCAGGAGTTCAAGACTAGCCTAGGCAACATAGTGAGACCCTGTCTCTACTAAAAATAAAT
TTAAAAAAAATTAGCTGAGTGTGGTGGTGCATGCATGTAGTTCCAGCTACTCAGGAGGCTGAGGCTAGAGGATCC
TTGAGCCCAGGAGGTTGAGGCTGCAGTGAGGTGTGATTGCGCCACTGCATTCCAGCTTGGGCGACAGAGCGAGAC
CCAGTCTCAAAAAAAAAAAAAAAAAGTATTTTTCTCTTACCGTTACAGTATTCTGATTATATTACTGACACAGTCAA
AATGATTAACTGTACAACCTGTATCTGCTGGGTGTTCTTGTTATCATATTGTAAACAGCTTTAAAAATATTTAT
ATTTTAAAAACTGTATGTGACATTAATATGCCTAATGATTAAAATTATAGTGATGAAATAAAAAAAAAAAAAAAA
AAAAA

FIGURE 355

MQAFLKGTSISTKPPLTKDRGVAASAGSSGENKKAKPVPWVEKYRPKCVDEVAFQEEVVAVLKKSLEGADLPNLL
FYGPPGTGKTSTILAAARELFGPELFRLRVLELNASDERGIQVVREKVKNFAQLTVSGSRSDGKPCPPFKIVILD
EADSMTSAAQAALRRTMEKESKTTRFCLICNYVSRIIEPLTSRCSKFRFKPLSDKIQQQRLLDIAKKENVKISDE
GIAYLVKVSEGDLRKAITFLQSATRLTGGKEITEKVITDIAGVIPAEKIDGVFAACQSGSFDKLEAVVKDLIDEG
HAATQLVNQLHDVVVENNLSDKQKSIITEKLAEVDKCLADGADEHLQLISLCATVMQQLSQNC

FIGURE 356

GGCACGAGCTCGGCTCCTGGAAAG**ATG**GAGGCAGCGGAGACAGAGGCGGAAGCTGCAGCCCTAGAGGTCCTGGCT
GAGGTGGCAGGCATCTTGGAACCTGTAGGCCTGCAGGAGGAGGCAGAACTGCCAGCCAAGATCCTGGTTGAGTTT
GTGGTGGACTCTCAGAAGAAAGACAAGCTGCTCTGCAGCCAGCTTCAGGTAGCGGATTTCCTGCAGAACATCCTG
GCTCAGGAGGACACTGCTAAGGGTCTCGACCCCTTGGCTTCTGAAGACACGAGCCGACAGAAGGCAATTGCAGCT
AAGGAACAATGGAAAGAGCTGAAGGCCACCTACAGGGAGCACGTAGAGGCCATCAAAATTGGCCTCACCAAGGCC
CTGACTCAGATGGAGGAAGCCCAGAGGAAACGGACACAACTCCGGGAAGCCTTTGAGCAGCTCCAGGCCAAGAAA
CAAATGGCCATGGAGAAACGCAGAGCAGTCCAGAACCAGTGGCAGCTACAACAGGAGAAGCATCTGCAGCATCTG
GCGGAGGTTTCTGCAGAGGTGAGGGAGCGTAAGACAGGGACTCAGCAGGAGCTTGACAGGGTGTTTCAGAAACTT
GGAAACCTGAAGCAGCAGGCAGAACAGGAGCGGGACAAGCTGCAGAGGTATCAGACCTTCCTCCAGCTTCTGTAT
ACCCTGCAGGGTAAGCTGTTGTTCCCTGAGGCTGAGGCTGAGGCAGAGAATCTTCCAGATGATAAACCCCAGCAG
CCGACTCGACCCCAGGAGCAGAGTACAGGAGACACCATGGGGAGAGACCCTGGTGTGTCCTTCAAGGCTGTTGGT
CTACAACCTGCTGGAGATGTAAATTTGCCA**TGA**CTTCCTGGAGGACAGCAGCATGGAGAAAGATCCTAGAAAAGG
CCTCTGACTTCCCTCACCTCCCAACCATCATTACAGGAAAGACTGTGAACTCCTGAGTTCAGCTTGATTTCTGAC
TACATCCCAGCAAGCTCTGGCATCTGTGGATTAAAATCCCTGGATCTCTCTCAGTTGTGTATTTGTTCATCTTCA
TATGCTGGCAGGAACAACTATTAATACAGATACTCAGAAGCCAATAACATGACAGGAGCTGGGACTGGTTTGAAC
ACAGGGTGTGCAGATGGGGAGGGGGTACTGGCCTTGGGCCTCCTATGATGCAGACATGGTGAATTTAATTCAAGG
AGGAGGAGAATGTTTAGGCAGGTGGTTATATGTGGGAAGATAATTTTATTCATGGATCCAAATGTTTGTTGAGT
CCTTTCTTTGTGCTAAGGTTCTTGCGGTGAACCAGAATTATAACAGTGAGCTCATCTGACTGTTTTAGGATGTAC
AGCCTAGTGTTAACATTCTTGGTATCTTTTTGTGCCTTATCTAAAACATTTCTCGATCACTGGTTTCAGATGTTC
ATTTATTATATTCTTTTCAAAGATTCAGAGATTGGCTTTTGTCATCCACTATTGTATGTTTTGTTTCATTGACCT
CTAGTGATACCTTGATCTTTCCCACTTTCTGTTTTCGGATTGGAGAAGATGTACCTTTTTGTCAACTCTTACTT
TTATCAGATGATCAACTCACGTATTTGGATCTTTATTTGTTTTCTCAAATAAATATTTAAGGTTAAAAAAAAAA
AAAAAAAA

FIGURE 357

MEAAETEAEAAALEVLAEVAGILEPVGLQEEAELPAKILVEFVVDSQKKDKLLCSQLQVADFLQNILAQEDTAKG
LDPLASEDTSRQKAIAAKEQWKELKATYREHVEAIKIGLTKALTQMEEAQRKRTQLREAFEQLQAKKQMAMEKRR
AVQNQWQLQQEKHLQHLAEVSAEVRERKTGTQQELDRVFQKLGNLKQQAEQERDKLQRYQTFLQLLYTLQGKLLF
PEAEAEAENLPDDKPQQPTRPQEQSTGDTMGRDPGVSFKAVGLQPAGDVNLP

FIGURE 358

CCTTCAGCATAAAAGCTGATCCACAAACAAGAGGAGCACCAGACCTCCTCTTGGCTTCGAG**ATG**GCTTCGCCACA
CCAAGAGCCCAAACCTGGAGACCTGATTGAGATTTTCCGCCTTGGCTATGAGCACTGGGCCCTGTATATAGGAGA
TGGCTACGTGATCCATCTGGCTCCTCCAAGTGAGTACCCCGGGGCTGGCTCCTCCAGTGTCTTCTCAGTCCTGAG
CAACAGTGCAGAGGTGAAACGGGGGCGCCTGGAAGATGTGGTGGGAGGCTGTTGCTATCGGGTCAACAACAGCTT
GGACCATGAGTACCAACCACGGCCCGTGGAGGTGATCATCAGTTCTGCGAAGGAGATGGTTGGTCAGAAGATGAA
GTACAGTATTGTGAGCAGGAACTGTGAGCACTTTGTCGCCCAGCTGAGATATGGCAAGTCCCGCTGTAAACAGGT
GGAAAAGGCCAAGGTTGAAGTCGGTGTGGCCACGGCGCTTGGAATCCTGGTTGTTGCTGGATGCTCTTTTGCGAT
TAGGAGATACCAAAAAAAAGCAACAGCC**TGA**AGCAGCCACAAAATCCTGTGTTAGAAGCAGCTGTGGGGGTCCCA
GTGGAGATGAGCCTCCCCCATGCCTCCAGCAGCCTGACCCTCGTGCCCTGTCTCAGGCGTTCTCTAGATCCTTTC
CTCTGTTTCCCTCTCTCGCTGGCAAAGTATGATCTAATTGAAACAAGACTGAAGGATCAATAAACAGCCATCTG
CCCCTTCAAAAAAAAAAA

FIGURE 359

MASPHQEPKPGDLIEIFRLGYEHWALYIGDGYVIHLAPPSEYPGAGSSSVFSVLSNSAEVKRGRLEDVVGGCCYR
VNNSLDHEYQPRPVEVIISSAKEMVGQKMKYSIVSRNCEHFVAQLRYGKSRCKQVEKAKVEVGVATALGILVVAG
CSFAIRRYQKKATA

FIGURE 360A

AGGGGGCGGCGCTCCCGGCCCATCCCTTAGCCCCGCGGCGGCCGTGTGGGCCGGAGGCTGCCTGCACCGCGTCAG
GGAGGCCGGCCTAGAAACCCTCCCTCCCAGAAGAAAGCCGATCCCAGTTCAGGTGGGGTCTTCCTCGGTTGCGTA
CCTGGCTGGAGCCGAGCTGGTGGGCGGCCGGCAGCCGGCGTTTCTGGTGATGACAGCCCCGAAATGAAAGCAGCG
CGGCCGCCGCCTCCGAGGGCTGCAGGGAGATCAGCGTCCAGCAAATAAGAAGCAAGTCCTGGACCCGGAGGAGGA
GGAGCGGCCGAGCATCTCTCTCTGCTCCGCCGTGTCCTTTAGATGAGCACTCCCGGCCGGAGCCGGAGGTGGATC
CGCAGAGCTGCCTCTGGGCGCCTGACCCCGCGCTGACATCACAACCTGTGACAGGCGCATCACGCCCGGTACCTG
CTCCCGGCCGCTGCCCGTCCTCCCAGCCTCTTTGTATGCCGCAGAC**ATG**GCCAGCCAGCAGGATTCGGGCTTCTT
TGAGATCAGTATCAAATATTTACTGAAATCCTGGAGTAATACTTCTCCCGTTGGCAACGGTTACATCAAGCCTCC
GGTTCCACCTGCTTCTGGCACGCACAGGGAGAAAGGGCCGCCAACCATGCTACCCATCAATGTGGACCCAGACAG
TAAAACCAGGAGAATATGTCCTCAAAAGTTTATTTGTCAACTTCACCACTCAGGCTGAACGCAAGATTCGTATCAT
TATGGCAGAGCCCCTGGAAAAGCCATTGACGAAATCTCTGCAACGTGGAGAAGACCCCCAATTTGATCAGGTCAT
CAGCTCAATGAGCTCCCTTTCTGAGTACTGCCTGCCTTCCATTCTACGTACATTATTTGACTGGTATAAAAGGCA
AAATGGCATTGAGGATGAATCACATGAATACAGACCAAGAACAAGCAATAAATCAAAAAGCGATGAACAACAGCG
AGATTATTTAATGGAAAGACGGGACCTCGCCATTGATTTTATTTTTTCTTTAGTATTAATAGAAGTTTTGAAACA
GATTCCACTTCATCCTGTAATAGACAGTTTAATACATGATGTTATTAACTTGGCTTTCAAGCACTTTAAATACAA
AGAAGGGTACCTTGGTCCCAACACTGGCAATATGCATATTGTGGCAGACCTGTATGCAGAAGTCATTGGAGTGTT
GGCACAAGCCAAATTCCCTGCTGTAAAGAAGAAATTTATGGCGGAGCTAAAAGAATTACGGCACAAAGAGCAGAA
CCCATATGTGGTTCAAAGCATTATCAGCTTAATAATGGGCATGAAATTCTTTCGAATTAAGATGTATCCAGTGGA
GGATTTTGAGGCCTCTCTTCAGTTTATGCAGGAATGTGCACATTACTTCCTCGAGGTCAAAGACAAAGATATCAA
GCATGCCTTGGCTGGGCTTTTTGTTGAAATACTTGTTCCAGTTGCTGCTGCTGTTAAAAATGAAGTAAATGTTCC
CTGCCTTAGAAATTTTGTGGAAAGCCTGTATGACACCACGCTGGAACTTTCTTCTCGAAAGAAGCATTCCTTGGC
CTTGTACCCCCTGGTGACCTGTTTGCTCTGTGTCAGTCAGAAGCAGCTGTTCCTGAACAGGTGGCACATTTTCCT
CAACAACTGCTTGTCCAACCTTAAAAACAAAGATCCCAAGATGGCTCGAGTTGCACTGGAATCTCTCTACAGATT
ACTTTGGGTTTACATGATTCGAATTAAATGTGAAAGCAACACAGCTACTCAGAGCCGACTTATAACCATCATCAC
AACACTTTTCCCCAAAGGGTCCCGCGGTGTGGTACCAAGGGACATGCCTCTGAACATCTTTGTGAAAATCATCCA
GTTCATTGCCCAGGAACGTTTAGATTTTGCAATGAAAGAAATCATTTTCGATTTTCTTTGTGTGGGAAAACCAGC
AAAAGCATTCAGTCTCAACCCAGAGAGAATGAACATTGGTTTACGGGCATTCTTGGTCATAGCTGATAGCTTGCA
GCAGAAAGATGGGGAACCTCCCATGCCGGTTACAGGAGCCGTTCTTCCTTCAGGAAACACGTTAAGAGTAAAGAA
AACATATTTGAGTAAAACACTAACTGAAGAGGAAGCCAAAATGATAGGCATGTCCTTATATTACTCTCAAGTACG
AAAAGCTGTAGACAACATTTTAAGGCACCTTGATAAAGAAGTAGGAAGGTGTATGATGCTGACTAATGTACAGAT
GTTAAACAAAGAACCGGAAGACATGATCACGGGTGAGAGAAAGCCAAAAATAGATCTTTTCAGGACCTGTGTTGC
TGCTATTCCTCGACTGCTTCCTGATGGGATGTCAAAACTTGAACTTATTGACTTACTGGCTAGGCTCTCTATTCA
TATGGATGATGAATTGCGACATATTGCACAAAATTCTCTTCAGGGTTTACTTGTTGACTTCTCAGATTGGAGGGA
AGATGTACTATTTGGCTTTACCAACTTCCTGCTCCGGGAAGTAAATGATATGCATCACACTCCTTGATTCGTC
CCTGAAGTTGCTGCTGCAGCTGCTCACCCAGTGGAAACTAGTCATCCAGACACAAGGAAAAGTCTATGAACAAGC
CAACAAAATCAGAAATTCAGAGCTCATCGCAAATGGCTCCAGTCACAGAATTCAGTCGGAACGAGGTCCCCACTG
CAGTGTACTCCACGCTGTAGAAGGTTTTGCTCTGGTTTTACTCTGCAGTTTCCAGGTGGCCACACGCAAACTGTC
CGTTTTAATACTCAAGGAAATTCGAGCGTTGTTTATTGCCCTGGGGCAGCCTGAGGATGACGACAGGCCGATGAT
TGATGTCATGGATCAGCTAAGTTCTTCCATTCTAGAAAGTTTTATTCATGTAGCAGTTTCGGATTCAGCAACATT
ACCACTCACCCACAATGTGGATCTGCAGTGGTTGGTGGAATGGAACGCAGTCCTGGTCAATAGCCATTATGATGT
GAAAAGCCCTTCCCATGTCTGGATATTTGCACAGTCTGTCAAAGACCCCTGGGTCCTCTGCCTCTTCAGCTTCCT
CCGGCAGGAGAACTTACCCAAGCACTGCCCCACAGCCCTCAGCTATGCCTGGCCTTATGCCTTCACTCGGCTCCA
GTCGGTGATGCCTCTGGTGGACCCAAATAGCCCAATTAATGCCAAGAAAACCAGCACTGCCGGCAGCGGAGACAA
CTAT́GTTACTTTGTGGAGAAATTACCTAATTCTTTGTTTTGGAGTTGCAAAACCCAGTATTATGAGCCCAGGACA
CTTAAGAGCTTCCACTCCAGAAATAATGGCGACCACACCTGATGGTACAGTGAGCTACGATAACAAGGCCATAGG
CACCCCATCGGTGGGAGTTCTGTTAAAGCAGTTGGTGCCTTTGATGAGACTAGAGAGCATTGAGATCACAGAGTC
CTTAGTTTTAGGATTTGGAAGAACAAATTCCCTTGTTTTCAGAGAATTGGTAGAAGAACTTCATCCATTAATGAA
AGAAGCTCTGGAAAGAAGACCAGAGAACAAGAAACGCCGAGAACGGCGAGACTTGTTAAGGCTACAACTACTTCG

FIGURE 360B

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AATTTTTGAACTTTTGGCTGATGCTGGTGTAATAAGTGACAGCACAAATGGAGCCCTAGAGCGGGATACTTTAGC
CCTGGGAGCTTTGTTCTTAGAATATGTGGACTTGACCCGCATGCTCCTAGAAGCTGAAAATGACAAAGAAGTTGA
AATTCTTAAAGATATCCGGGCACATTTTAGTGCAATGGTGGCCAACTTGATTCAGTGTGTTCCAGTTCACCACCG
AAGATTTCTCTTCCCCCAGCAAAGTCTGAGGCACCACCTTTTCATCTTATTCAGCCAGTGGGCAGGACCCTTCAG
CATTATGTTCACTCCTCTGGATCGTTACAGTGACAGAAATCATCAGATTACAAGATATCAGTATTGTGCATTAAA
AGCAATGTCAGCAGTACTGTGCTGTGGCCCTGTCTTTGACAATGTGGGCCTTTCCCCAGATGGCTACCTATATAA
ATGGCTTGACAACATTCTGGCTTGTCAAGATTTACGAGTTCATCAACTTGGCTGCGAAGTTGTTGTCTTGCTACT
GGAACTTAATCCTGACCAAATAAATCTTTTTAACTGGGCAATTGACCGATGCTACACAGGTTCCTACCAACTTGC
ATCTGGCTGCTTCAAAGCCATAGCAACTGTGTGTGGAAGCAGGAACTATCCCTTCGACATAGTGACATTGTTAAA
CCTTGTTCTATTCAAGGCCTCTGACACCAACAGAGAGATTTATGAAATCTCCATGCAGCTCATGCAGATCCTTGA
AGCAAAGCTTTTTGTATACTCAAAGAAAGTCGCTGAGCAAAGACCGGGAAGTATTCTCTATGGAACACACGGCCC
GCTGCCACCCCTCTACAGCGTGTCACTCGCCCTCTTGTCATGTGAGCTGGCCAGGATGTACCCTGAGCTCACACT
CCCCCTCTTCTCAGGTAAGCCAGCGATTCCCCACAACACACCCCAACGGGCGCCAGATCATGCTTACCTACCTGC
TGCCCTGGCTGCACAACATCGAGCTGGTGGACAGCAGGCTCCTCCTCCCGGGTCGAGCCCCAGCAGCCCAGAGGA
CGAAGTCAAGGACCGGGAAGGTGACGTGACTGCTTCTCACGGGCTGAGAGGAAATGGCTGGGGCTCTCCAGAAGC
CACGTCACTGGTCCTGAACAACCTCATGTACATGACGGCCAAGTATGGAGATGAAGTTCCTGGGCCAGAAATGGA
AAATGCTTGGAATGCTTTAGCCAACAATGAGAAATGGAGCAACAACCTGAGGATCACCTTGCAGTTCCTGATTAG
CCTCTGTGGGGTCAGCAGCGACACAGTTCTCCTACCCTATATTAAAAAAGTGGCAATATACTTGTGCCGTAACAA
CACCATTCAAACCATGGAAGAGCTTCTCTTTGAGCTGCAGCAGACAGAACCCGTGAACCCCATCGTCCAGCATTG
TGACAACCCGCCCTTCTACCGCTTCACGGCCAGTAGCAAGGCTTCCGCAGCAGCCTCAGGAACCACCTCTAGCAG
CAATACAGTGGTTGCTGGCCAGGAAAATTTCCCAGATGCTGAGGAGAACAAGATATTGAAAGAATCTGATGAAAG
GTTTAGTAATGTCATCAGAGCCCACACTCGCCTCGAGTCAAGATACAGCAATAGCTCTGGAGGATCCTACGATGA
AGATAAAAATGATCCAATTTCTCCCTACACGGGCTGGTTGCTGACTATTACAGAGACCAAGCAGCCGCAGCCCTT
ACCGATGCCTTGTACTGGAGGATGCTGGGCCCCCCTGGTTGACTATCTCCCGGAGACCATCACTCCCCGGGGGCC
ACTCCACAGGTGCAATATTGCTGTAATTTTTATGACTGAAATGGTGGTGGATCACAGTGTACGAGAAGACTGGGC
GCTTCATCTACCATTATTACTTCATGCTGTCTTCTTAGGTTTAGACCACTACCGGCCTGAAGTCTTTGAACACAG
CAAAAAACTGCTTCTTCACCTCTTGATTGCCCTCTCTTGCAACAGCAATTTCCATTCCATTGCTTCCGTGCTCCT
GCAGACCCGAGAGATGGGTGAAGCTAAGACTCTAACCGTGCAGCCAGCCTACCAACCTGAATATCTCTATACAGG
TGGCTTTGACTTCCTGAGAGAGGACCAGTCATCCCCGGTGCCTGACTCAGGGCTTAGTTCAAGCTCCACCTCCTC
TAGCATCAGTCTGGGAGGCAGCAGTGGAAACCTCCCACAGATGACCCAGGAGGTAGAAGATGTGGACACAGCTGC
TGAAACAGATGAGAAGGCAAACAAGCTCATTGAGTTTCTCACGACCAGGGCATTGGTCCACTTTGGTGCCATGA
AGACATCACACCTAAAAATCAAAATTCAAAGAGTGCTGAACAGCTCACTAATTTTCTACGTCACGTTGTATCTGT
ATTTAAAGATTCCAAATCAGGCTTCCATCTGGAGCACCAGTTGAGTGAAGTTGCATTGCAGACAGCCCTCGCAAG
CTCTTCAAGGCACTATGCTGGTCGGTCCTTCCAGATATTCCGGGCCCTCAAGCAACCTCTGTCAGCACATGCCTT
ATCTGACCTTCTCTCAAGATTGGTGGAGGTGATAGGAGAACATGGAGATGAGATTCAGGGTTATGTAATGGAAGC
GCTCCTAACCTTGGAGGCGGCTGTGGATAACTTGTCTGACTGCTTGAAGAACAGTGACCTCCTAACTGTATTGTC
CCGCTCTTCCTCACCAGATTTAAGCTCCAGCAGTAAACTAACAGCAAGCAGAAAGAGCACAGGACAACTAAACAT
GAACCCGGGAACCACCAGCGGCAACACCGCAACTGCCGAACGGAGCCGGCATCAACGAAGCTTCTCTGTGCCCAA
GAAGTTTGGTGTCATCGACCGATCCTCTGACCCACCTCGAAGTGCCACACTGGACAGAATTCAGGCTTGTACCCA
ACAAGGCCTCTCCTCAAAAACCAGAAGCTCATCCTCCTTGAAGGACAGTCTCACGGACCCATCCCACATAAACCA
TCCCACCAACCTGCTGGCCACCATATTCTGGGTCACAGTGGCCTTGATGGAGTCTGATTTTGAGTTTGAATACTT
AATGGCCTTAAGGCTGTTGAGCAGACTACTGGCACATATGCCACTCGATAAGGCTGAGAACCGAGAAAAGCTTGA
GAAACTCCAGGCACAGCTGAAGTGGGCCGACTTCTCCGGGCTGCAGCAGCTGCTGCTGAAAGGATTCACATCCCT
CACCACCACAGACCTGACCCTGCAGCTCTTCAGTCTGCTGACACCAGTGTCCAAAATATCCATGGTGGATGCATC
CCACGCTATTGGGTTTCCACTGAATGTCTTGTGTCTCCTGCCTCAGCTGATTCAGCATTTTGAAAATCCCAATCA
GTTCTGTAAGGATATAGCCGAAAGGATTGCTCAGGTTTGTTTAGAAGAGAAGAACCCCAAACTTTCAAATCTTGC
ACATGTCATGACTCTTTATAAAACGCACAGCTACACGAGGGACTGTGCCACGTGGGTCAATGTGGTCTGTCGATA
CCTTCATGAAGCATATGCTGACATTACCTTGAATATGGTTACCTACCTGGCAGAGCTGCTGGAGAAGGGCCTCCC
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FIGURE 360C

TAGTGTGCAGCAGCCCCTGCTCCAGGTGATCTACAGTCTTCTCAGCTACATGGACCTTTCTGTCGTTCCTGTCAA
ACAGTTCAATGTGGAAGTTCTGAAGACAATTGAAAAATATGTGCAAAGTGTTCACTGGAGAGAAGCTCTGAATAT
CTTGAAGCTGGTAGTTTCTCGGTCAGCCAGCCTTGTTTTACCTTCATACCAGCACAGTGACCTCTCAAAAATAGA
AATACATCGAGTGTGGACTAGTGCTTCCAAGGAATTACCTGGGAAAACCCTGGACTTCCACTTCGATATTTCGGA
GACTCCAATCATCGGGAGGCGGTATGATGAGCTGCAGAATTCTTCTGGGCGTGATGGGAAGCCCAGGGCCATGGC
CGTCACCCGGAGCACATCTTCCACTTCCTCAGGCTCCAACTCCAACGTCCTTGTTCCAGTGAGCTGGAAAAGGCC
CCAGTATTCTCAGAAGAGAACAAAAGAGAAGTTGGTACATGTCCTTTCTCTGTGTGGCCAAGAAGTAGGATTGAG
CAAAAATCCATCAGTGATTTTTTCATCGTGTGGGGATCTGGATCTGCTTGAGCACCAGACAAGCTTGGTATCTTC
TGAGGACGGTGCCCGAGAGCAGGAGAACATGGATGACACAAACAGCGAGCAGCAGTTTAGAGTCTTCAGAGACTT
CGACTTCCTAGATGTGGAGCTGGAGGATGGAGAGGGTGAGAGTATGGACAATTTCAACTGGGGAGTGCGCAGACG
TTCTCTGGACAGCCTGGATAAGTGTGATATGCAGATTCTGGAGGAGCGCCAACTGTCAGGAAGCACTCCTAGCCT
GAATAAAATGCACCATGAGGACTCCGATGAATCATCCGAGGAGGAGGACCTCACAGCCAGCCAGATCCTGGAGCA
CTCAGACCTAATCATGACTCTCTCCCCCTCTGAAGAGACGAATCCCATGGAGCTGCTCACCACAGCCTGTGACTC
GACCCCTGCAGAACCTCATTCCTTTAACACCAGAATGTCCAGCTTTGATGCTTCCTTGCCTGATATGAATAATCT
GCAGATTTCTGAGGGTTCAAAGGCTGAAGCTGTTCGTGAGGAGGAGGACACCACCGTGCATGAGGATGATCTTTC
TAGTTCCATCAATGAACTCCCAGCAGCTTTTGAATGCAGCGACAGCTTTAGCCTGGACATGACTGAGGGGGAAGA
AAAAGGCAATCGGGCACTGGACCAGTTTACCCTGGCGAGCTTTGGAGAAGGTGACAGGGGAGTCTCTCCCCCTCC
CTCGCCCTTCTTCTCAGCCATCCTTGCCGCCTTTCAGCCCGCAGCCTGTGACGATGCCGAGGAGGCCTGGCGCAG
CCACATCAACCAGCTTATGTGTGACTCAGATGGCTCCTGTGCTGTGTATACATTTCATGTGTTCTCCTCCTTGTT
TAAGAATATTCAGAAAAGGTTCTGCTTCCTAACCTGTGATGCAGCCAGTTACCTTGGAGATAACCTCCGGGGAAT
CGGATCCAAATTTGTCAGCTCTTCCCAGATGCTCACCTCCTGCTCTGAATGTCCTACACTTTTTGTGGATGCCGA
GACTCTCCTTTCATGTGGACTTCTGGACAAGCTCAAGTTCAGTGTGTTAGAACTGCAAGAATATTTGGATACCTA
CAACAACAGGAAAGAGGCCACACTCTCTTGGCTTGCAAATTGTAAGGCAACATTTGCAGGGGGATCAAGAGATGG
AGTAATTACCTGTCAACCAGGGGACTCCGAAGAAAAGCAATTGGAACTGTGTCAGAGATTATATAAGCTACACTT
CCAGCTGCTATTGCTTTTTCAGTCCTACTGTAAGCTCATCGGCCAGGTGCACGAAGTTAGCTCCATGCCAGAGCT
GCTGAATATGTCCAGGGAACTGAGTGACCTAAAGAAACACCTGAAGGAAGCCAGTGCAGTCATTGCAGCTGACCC
TCTCTATTCAGACGGCGCGTGGTCCGAGCCCACCTTCACGTCCACTGAAGCAGCCATCCAGTCCATGCTGGAGTG
CCTGAAGAACAACGAACTCGGCAAAGCTTTGCGGCAGATCAGGGAGTGCAGAAGTCTGTGGCCCAATGACATCTT
TGGAAGCAGTTCTGATGATGAGGTCCAGACACTACTGAATATTTATTTCCGTCACCAAACTCTGGGACAGACGGG
TACTTATGCCCTGGTGGGGTCTAACCAGAGCCTGACCGAGATCTGCACCAAGCTGATGGAGCTGAACATGGAGAT
CCGGGACATGATCCGCAGGGCCCAGAGTTACCGAGTCCTCACTACTTTTCTTCCAGACTCCAGTGTTTCTGGCAC
TAGTCTCTGACAGGAGCCTCCTGTCCCCACTGGGTTCCAAACTGCAGTGCTGCCATGCTGGGGCAACGTCATTCA
GTGTCTTCTCGGCCTTCAAAAGGCTTGGACAGACTGTTCTCCCTCTTGTTACCTGTAGGGCTTTTTCTAAAGAGG
ATGGCAGAACTTCCAACGTGTAGCAATACTATAAGAACCAAGGTAGCTTAGAACGTCCTGGACAGACTCCACTCA
TCATGCTGTGTGGCACAAATGTGTTACATTTGACCGAGCATATGCAACTCGCTACTGAAGAAGTGACTTCCGTTG
CATACCAAAGCCGACTACACTGAACAGTACCTTCCTTTCTAGAAACAATTTTAGATTGGCAAAAGTGCAATGTTT
TCTTCACTCAAAAAATTTTATATTCTCAAACATGTATATTCTTTCCCTGTCTTGTTCCATTTTCTTTTCTTTTTT
CTTTTTTCTTTTTCCTTTCTTTCGTGGGCTGAGAAAGGGGCAGGCAAAATGAAGCTGGCCACTGAAAACTGTAAG
ATGGTCAAAAGCTGACAGCCTGTGTATGTGAAAAGGGAATTGTAAATGGACTGCAATGTAATGTACACTGTAATT
TGAATACAATTACTGTATCTAAAAGGAGCTGCTATGAAGTACCTTTCTTATGTTGCTAGGCTACTGTTTCTGAAA
GCCCTGGATCTCTTTGCACCAAAAATGGTCCAGATAGACTCTTTTTAAGGATCTTGGCTGCTTTTTACTAGAAGG
TTGCTTTTATGAGCATATTTATACTGCTGAAGGATGAGTGTTAATTTTAATTAACTTTGCCGTTTTGTAGAGAAA
ACTATTCACAAGATAAATTCCAAGTCTTTTCACCTGTCAGGCATGCATATTTAATATCTGTTTGGATAGTCAGA
AGTAGAATCATAAAGGTAAAATATGAGTTGTTACTTTGTTTCTTCGATGTCATATTTTATGTGTAATATATATGT
AAAGGGCCATTCTTAAGTTCTCTCCTTAAACTTAATGCTGTCAAGTGTTAGATGTGTGCATGTGAACTTGTTGCA
CTGCAGAAACATATTCAGAGTTTATCTATGTAACTTATTCACTCTGTAAATACATTTAAAGTTTTTGTGATGTAA
GCTTAATTGATATTCTGTTCAGAACTTTCTTTAGACTAAAAAAAAAAAAAAAAAGACAAA

FIGURE 361

MASQQDSGFFEISIKYLLKSWSNTSPVGNGYIKPPVPPASGTHREKGPPTMLPINVDPDSKPGEYVLKSLFVNFT
TQAERKIRIIMAEPLEKPLTKSLQRGEDPQFDQVISSMSSLSEYCLPSILRTLFDWYKRQNGIEDESHEYRPRTS
NKSKSDEQQRDYLMERRDLAIDFIFSLVLIEVLKQIPLHPVIDSLIHDVINLAFKHFKYKEGYLGPNTGNMHIVA
DLYAEVIGVLAQAKFPAVKKKFMAELKELRHKEQNPYVVQSIISLIMGMKFFRIKMYPVEDFEASLQFMQECAHY
FLEVKDKDIKHALAGLFVEILVPVAAAVKNEVNVPCLRNFVESLYDTTLELSSRKKHSLALYPLVTCLLCVSQKQ
LFLNRWHIFLNNCLSNLKNKDPKMARVALESLYRLLWVYMIRIKCESNTATQSRLITIITTLFPKGSRGVVPRDM
PLNIFVKIIQFIAQERLDFAMKEIIFDFLCVGKPAKAFSLNPERMNIGLRAFLVIADSLQQKDGEPPMPVTGAVL
PSGNTLRVKKTYLSKTLTEEEAKMIGMSLYYSQVRKAVDNILRHLDKEVGRCMMLTNVQMLNKEPEDMITGERKP
KIDLFRTCVAAIPRLLPDGMSKLELIDLLARLSIHMDDELRHIAQNSLQGLLVDFSDWREDVLFGFTNFLLREVN
DMHHTLLDSSLKLLLQLLTQWKLVIQTQGKVYEQANKIRNSELIANGSSHRIQSERGPHCSVLHAVEGFALVLLC
SFQVATRKLSVLILKEIRALFIALGQPEDDDRPMIDVMDQLSSSILESFIHVAVSDSATLPLTHNVDLQWLVEWN
AVLVNSHYDVKSPSHVWIFAQSVKDPWVLCLFSFLRQENLPKHCPTALSYAWPYAFTRLQSVMPLVDPNSPINAK
KTSTAGSGDNYVTLWRNYLILCFGVAKPSIMSPGHLRASTPEIMATTPDGTVSYDNKAIGTPSVGVLLKQLVPLM
RLESIEITESLVLGFGRTNSLVFRELVEELHPLMKEALERRPENKKRRERRDLLRLQLLRIFELLADAGVISDST
NGALERDTLALGALFLEYVDLTRMLLEAENDKEVEILKDIRAHFSAMVANLIQCVPVHHRRFLFPQQSLRHHLFI
LFSQWAGPFSIMFTPLDRYSDRNHQITRYQYCALKAMSAVLCCGPVFDNVGLSPDGYLYKWLDNILACQDLRVHQ
LGCEVVVLLLELNPDQINLFNWAIDRCYTGSYQLASGCFKAIATVCGSRNYPFDIVTLLNLVLFKASDTNREIYE
ISMQLMQILEAKLFVYSKKVAEQRPGSILYGTHGPLPPLYSVSLALLSCELARMYPELTLPLFSGKPAIPHNTPQ
RAPDHAYLPAALAAQHRAGGQQAPPPGSSPSSPEDEVKDREGDVTASHGLRGNGWGSPEATSLVLNNLMYMTAKY
GDEVPGPEMENAWNALANNEKWSNNLRITLQFLISLCGVSSDTVLLPYIKKVAIYLCRNNTIQTMEELLFELQQT
EPVNPIVQHCDNPPFYRFTASSKASAAASGTTSSSNTVVAGQENFPDAEENKILKESDERFSNVIRAHTRLESRY
SNSSGGSYDEDKNDPISPYTGWLLTITETKQPQPLPMPCTGGCWAPLVDYLPETITPRGPLHRCNIAVIFMTEMV
VDHSVREDWALHLPLLLHAVFLGLDHYRPEVFEHSKKLLLHLLIALSCNSNFHSIASVLLQTREMGEAKTLTVQP
AYQPEYLYTGGFDFLREDQSSPVPDSGLSSSSTSSSISLGGSSGNLPQMTQEVEDVDTAAETDEKANKLIEFLTT
RAFGPLWCHEDITPKNQNSKSAEQLTNFLRHVVSVFKDSKSGFHLEHQLSEVALQTALASSSRHYAGRSFQIFRA
LKQPLSAHALSDLLSRLVEVIGEHGDEIQGYVMEALLTLEAAVDNLSDCLKNSDLLTVLSRSSSPDLSSSSKLTA
SRKSTGQLNMNPGTTSGNTATAERSRHQRSFSVPKKFGVIDRSSDPPRSA

FIGURE 362

TTCCCCCCCCCCCCCCCCCCCCCGCCCGAGCACAGGACACAGCTGGGTTCTGAAGCTTCTGAGTTCTGCAGCCT
CACCTCTGAGAAAACCTCTTTTCCACCAATACC**ATG**AAGCTCTGCGTGACTGTCCTGTCTCTCCTCATGCTAGTA
GCTGCCTTCTGCTCTCCAGCGCTCTCAGCACCAATGGGCTCAGACCCTCCCACCGCCTGCTGCTTTTCTTACACC
GCGAGGAAGCTTCCTCGCAACTTTGTGGTAGATTACTATGAGACCAGCAGCCTCTGCTCCCAGCCAGCTGTGGTA
TTCCAAACCAAAAGAAGCAAGCAAGTCTGTGCTGATCCCAGTGAATCCTGGGTCCAGGAGTACGTGTATGACCTG
GAACTGAAC**TGA**GCTGCTCAGAGACAGGAAGTCTTCAGGGAAGGTCACCTGAGCCCGGATGCTTCTCCATGAGAC
ACATCTCCTCCATACTCAGGACTCCTCTCCGCAGTTCCTGTCCCTTCTCTTAATTTAATCTTTTTTATGTGCCGT
GTTATTGTATTAGGTGTCATTTCCATTATTTATATTAGTTTAGCCAAAGGATAAGTGTCCTATGGGGATGGTCCA
CTGTCACTGTTTCTCTGCTGTTGCAAATACATGGATAACACATTTGATTCTGTGTGTTTTCCATAATAAAACTTT
AAAATAAAATGCAGACAGTTA

FIGURE 363

MKLCVTVLSLLMLVAAFCSPALSAPMGSDPPTACCFSYTARKLPRNFVVDYYETSSLCSQPAVVFQTKRSKQVCA
DPSESWVQEYVYDLELN

FIGURE 364

GGCACGAGGCCTCGTGCCGCCGGGCTCTTGGTACCTCAGCGCGAGCGCCAGGCGTCCGGCCGCCGTGGCT**ATG**TT
CGTGTCCGATTTCCGCAAAGAGTTCTACGAGGTGGTCCAGAGCCAGAGGGTCCTTCTCTTCGTGGCCTCGGACGT
GGATGCTCTGTGTGCGTGCAAGATCCTTCAGGCCTTGTTCCAGTGTGACCACGTGCAATATACGCTGGTTCCAGT
TTCTGGGTGGCAAGAACTTGAAACTGCATTTCTTGAGCATAAAGAACAGTTTCATTATTTTATTCTCATAAACTG
TGGAGCTAATGTAGACCTATTGGATATTCTTCAACCTGATGAAGACACTATATTCTTTGTGTGTGACACCCATAG
GCCAGTCAATGTCGTCAATGTATACAACGATACCCAGATCAAATTACTCATTAAACAAGATGATGACCTTGAAGT
TCCCGCCTATGAAGACATCTTCAGGGATGAAGAGGAGGATGAAGAGCATTCAGGAAATGACAGTGATGGGTCAGA
GCCTTCTGAGAAGCGCACACGGTTAGAAGAGGAGATAGTGGAGCAAACCATGCGGAGGAGGCAGCGGCGAGAGTG
GGAGGCCCGGAGAAGAGACATCCTCTTTGACTACGAGCAGTATGAATATCATGGGACATCGTCAGCCATGGTGAT
GTTTGAGCTGGCTTGGATGCTGTCCAAGGACCTGAATGACATGCTGTGGTGGGCCATCGTTGGACTAACAGACCA
GTGGGTGCAAGACAAGATCACTCAAATGAAATACGTGACTGATGTTGGTGTCCTGCAGCGCCACGTTTCCCGCCA
CAACCACCGGAACGAGGATGAGGAGAACACACTCTCCGTGGACTGCACACGGATCTCCTTTGAGTATGACCTCCG
CCTGGTGCTCTACCAGCACTGGTCCCTCCATGACAGCCTGTGCAACACCAGCTATACCGCAGCCAGGTTCAAGCT
GTGGTCTGTGCATGGACAGAAGCGGCTCCAGGAGTTCCTTGCAGACATGGGTCTTCCCCTGAAGCAGGTGAAGCA
GAAGTTCCAGGCCATGGACATCTCCTTGAAGGAGAATTTGCGGGAAATGATTGAAGAGTCTGCAAATAAATTTGG
GATGAAGGACATGCGCGTGCAGACTTTCAGCATTCATTTTGGGTTCAAGCACAAGTTTCTGGCCAGCGACGTGGT
CTTTGCCACCATGTCTTTGATGGAGAGCCCCGAGAAGGATGGCTCAGGGACAGATCACTTCATCCAGGCTCTGGA
CAGCCTCTCCAGGAGTAACCTGGACAAGCTGTACCATGGCCTGGAACTCGCCAAGAAGCAGCTGCGAGCCACCCA
GCAGACCATTGCCAGCTGCCTTTGCACCAACCTCGTCATCTCCCAGGGGCCTTTCCTGTACTGCTCTCTCATGGA
GGGCACTCCAGATGTCATGCTGTTCTCTAGGCCGGCATCCCTAAGCCTGCTCAGCAAACACCTGCTCAAGTCCTT
TGTGTGTTCGACAAAGAACCGGCGCTGCAAACTGCTGCCCCTGGTGATGGCTGCCCCCTGAGCATGGAGCATGG
CACAGTGACCGTGGTGGGCATCCCCCCAGAGACCGACAGCTCGGACAGGAAGAACTTTTTGGGAGGGCGTTTGA
GAAGGCAGCGGAAAGCACCAGCTCCCGGATGCTGCACAACCATTTTGACCTCTCAGTAATTGAGCTGAAAGCTGA
GGATCGGAGCAAGTTTCTGGACGCACTTATTTCCCTCCTGTCC**TAG**GAATTTGATTCTTCCAGAATGACCTTCTT
ATTTATGTAACTGGCTTTCATTTAGATTGTAAGTTATGGACATGATTTGAGATGTAGAAGCCATTTTTTATTAAA
TAAAATGCTTATTTTAGGCTCCGTCCCCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 365

MFVSDFRKEFYEVVQSQRVLLFVASDVDALCACKILQALFQCDHVQYTLVPVSGWQELETAFLEHKEQFHYFILI
NCGANVDLLDILQPDEDTIFFVCDTHRPVNVVNVYNDTQIKLLIKQDDDLEVPAYEDIFRDEEEDEEHSGNDSDG
SEPSEKRTRLEEEIVEQTMRRRQRREWEARRRDILFDYEQYEYHGTSSAMVMFELAWMLSKDLNDMLWWAIVGLT
DQWVQDKITQMKYVTDVGVLQRHVSRHNHRNEDEENTLSVDCTRISFEYDLRLVLYQHWSLHDSLCNTSYTAARF
KLWSVHGQKRLQEFLADMGLPLKQVKQKFQAMDISLKENLREMIEESANKFGMKDMRVQTFSIHFGFKHKFLASD
VVFATMSLMESPEKDGSGTDHFIQALDSLSRSNLDKLYHGLELAKKQLRATQQTIASCLCTNLVISQGPFLYCSL
MEGTPDVMLFSRPASLSLLSKHLLKSFVCSTKNRRCKLLPLVMAAPLSMEHGTVTVVGIPPETDSSDRKNFFGRA
FEKAAESTSSRMLHNHFDLSVIELKAEDRSKFLDALISLLS

FIGURE 366

GCGGGATTTTCAAGCGTAGGCCCCCGGGAACTCGAGCTGCC**ATG**AGCCTCTGGGTGGACAAGTATCGGCCCTGCT
CCTTGGGACGGCTGGACTATCACAAGGAGCAGGCGGCCCAGCTGCGGAACCTGGTGCAGTGTGGTGACTTTCCTC
ATCTGTTAGTGTACGGACCATCAGGTGCTGGAAAAAAGACAAGAATTATGTGTATTCTACGTGAACTTTATGGTG
TTGGAGTGGAAAAATTGAGAATTGAACATCAGACCATCACAACTCCATCTAAAAAAAAAATTGAAATTAGCACCA
TTGCAAGTAACTACCACCTTGAAGTTAATCCTAGTGATGCTGGAAATAGTGACCGAGTAGTCATTCAGGAGATGT
TGAAAACAGTGGCACAATCACAACAACTTGAAACAAACTCTCAAAGGGATTTTAAAGTGGTATTATTGACAGAAG
TTGACAAACTCACCAAAGATGCTCAGCATGCCTTGCGAAGAACCATGGAAAAATATATGTCTACCTGCAGATTGA
TCTTGTGCTGCAATTCTACATCTAAAGTGATCCCACCTATTCGTAGTAGGTGCTTGGCGGTTCGTGTGCCTGCTC
CCAGCATTGAAGATATTTGCCACGTGTTATCTACTGTGTGTAAGAAGGAAGGTCTGAATCTTCCTTCACAACTGG
CTCATAGACTTGCAGAGAAGTCTTGTAGAAATCTCAGAAAAGCCCTGCTTATGTGTGAAGCCTGCAGAGTGCAAC
AATATCCTTTTACTGCAGATCAAGAAATCCCTGAGACAGATTGGGAGGTGTATCTGAGGGAGACTGCAAATGCTA
TTGTCAGTCAGCAAACTCCACAAAGGCTCCTTGAAGTTCGTGGAAGGCTGTATGAGCTTCTAACTCATTGTATTC
CTCCTGAGATAATAATGAAGGGCCTTCTCTCAGAACTGTTACATAATTGTGATGGACAACTGAAAGGGGAGGTGG
CACAAATGGCAGCTTACTATGAGCATCGTCTACAGCTGGGTAGCAAAGCCATTTATCACTTGGAAGCGTTTGTGG
CCA̧AATTCATGGCACTTTATAAGAAGTTCATGGAGGATGGATTGGAAGGCATGATGTTC**TGA**CTTCTGTCAGTTA
TTCTTGCAAAGATTTCTCAGTATCAGTATTTACATACAGCTTATATTAAAAGAGCTGTGGGTAAATTAACTGAAC
TTAATCATGTCGTATTTGCGTTTTTTTGGTAATAACTTCTCTGTGAACTATTAATCATCCTCTGAGTTAAATAAT
TĢCTCCTATACTATTGAAGTATGTAGTTTTGTACATAACTTAGAGACTTTAGAGTCTAAGAAAATGATCTTAATT
TACTTTAAGCATTGGTTATTCAAGTATTCATTGTTGATCCTCCTATTCTCTTCCGTCTAATCTCTCACCTGCTAA
AGGAGATTTACACATTAGAAAGCAAAGATTATTTTCATTTATCCAGATGACCATTTTCTGCCACAGGTAACATGA
TTGTTTGACACACCATTATATTTAATTCTAGTTTCTCTCAATGAATAATTGTATTTTTGTAGGAAATGTAAGATT
TCATTCTGAAACATAATTATTGGTATGGACAAAATTGCAGATACCATTTCTGTTGAGGCTGCAGATTTCCAACTT
TTATTTCAGTGGTTCAGATTAGTATTAGGTCGGTACTAAGAAATAAGCATGTTTTCACTAATTTAAGTACTTGAG
ACTCTTGAAGAAAATTCAGAATGAAGTTCTGGAGAAAGGTATGTTACTGTAGTAATTACTCTTTGAACAGGTTTT
GTGTTTTGTCATTAGCTCTGCĊCTTTTTAATTAAATATTTTGGTTCATGGACCAAAGGGTTTACTTGACAAATTT
GTGTGACAGACTCCGAACAATTCCTTTACTACGAAGTATAATTTATAAAATAAAATATACCCATTTTAAGGGTAC
AGTTTGATTTTTGACCAGTGAAACTATGATCCCAATCAAGGTATAGATGCCGTCACCCCAAAAAGTTCCCTCCAT
ATCCCTTTGCAGTCAGTTCATCCCTACCCTGGCCCAGATGATCACTGATCTTGTCATTATAGATGAGTTTTGCCA
GTTCAAGAATTTAATGGAATCAGATATTGTAAGCATTCTTGTGTAATACTTCATTCTCTCATTATTGAGATTC
ATCCATATTGTTGAATGTTTCACTAGTTAATGTTTATTGTTCAATATTTTTGTATATACTTTTAAAGCCTATTCA
CTTGCTGATGGATCTTTGGTTTGTTTCCAGGTTTGGTTATTATGAATAAAGTTGCTGTGAATAAAAAAAAAAAAA
AAAAAA

FIGURE 367

MSLWVDKYRPCSLGRLDYHKEQAAQLRNLVQCGDFPHLLVYGPSGAGKKTRIMCILRELYGVGVEKLRIEHQTIT
TPSKKKIEISTIASNYHLEVNPSDAGNSDRVVIQEMLKTVAQSQQLETNSQRDFKVVLLTEVDKLTKDAQHALRR
TMEKYMSTCRLILCCNSTSKVIPPIRSRCLAVRVPAPSIEDICHVLSTVCKKEGLNLPSQLAHRLAEKSCRNLRK
ALLMCEACRVQQYPFTADQEIPETDWEVYLRETANAIVSQQTPQRLLEVRGRLYELLTHCIPPEIIMKGLLSELL
HNCDGQLKGEVAQMAAYYEHRLQLGSKAIYHLEAFVAKFMALYKKFMEDGLEGMMF

FIGURE 368

CGAGCTGCC**ATG**AGCCTCTGGGTGGACAAGTATCGGCCCTGCTCCTTGGGACGGCTGGACTATCACAAGGAGCAG
GCGGCCCAGCTGCGGAACCTGGTGCAGTGTGGTGACTTTCCTCATCTGTTAGTGTACGGACCATCAGGTGCTGGA
AAAAAGACAAGAATTATGTGTATTTTACGTGAACTTTATGGTGTTGGAGTGGAAAAATTGAGAATTGAACATCAG
ACCATCACAACTCCATCTAAAAAAAAAATTGAAATTAGCACCATTGCAAGTAACTACCACCTTGAAGTTAATCCT
AGTGATGCTGGAAATAGTGACCGAGTAGTCATTCAGGAGATGTTGAAAACAGTGGCACAATCACAACAACTTGAA
ACAAACTCTCAAAGGGATTTTAAAGTGGTATTATTGACAGAAGTTGACAAACTCACCAAAGATGCTCAGCATGCC
TTGCGAAGAACCATGGAAAAATATATGTCTACCTGCAGATTGATCTTGTGCTGCAATTCTACATCTAAAGTGATC
CCACCTATTCGTAGTAGGTGCTTGGCGGTTCGTGTGCCTGCTCCCAGCATTGAAGATATTTGCCACGTGTTATCT
ACTGTGTGTAAGAAGGAAGGTCTGAATCTTCCTTCACAACTGGCTCATAGACTTGCAGAGAAGTCTTGTAGAAAT
CTCAGAAAAGCCCTGCTTATGTGTGAAGCCTGCAGAGTGCAACAATATCCTTTTACTGCAGATCAAGAAATCCCT
GAGACAGATTGGGAGGTGTATCTGAGGGAGACTGCAAATGCTATTGTCAGTCAGCAAACTCCACAAAGGCTCCTT
GAAGTTCGTGGAAGGCTGTATGAGCTTCTAACTCATTGTATTCCTCCTGAGATAATAATGAAGGGCCTTCTCTCA
GAACTGTTACATAATTGTGATGGACAACTGAAAGGGGAGGTGGCACAAATGGCAGCTTACTATGAGCATCGTCTA
CAGCTGGGTAGCAAAGCCATTTATCACTTGGAAGCGTTTGTGGCCAAATTCATGGCACTTTATAAGAAGTTCATG
GAGGATGGATTGGAAGGCATGATGTTC**TGA**CTTCTGTCAGTTATTCTTGCAAAGATTTCTCAGTATCAGTATTTA
CATACAGCTTATATTAAAAGAGCTGTGGGTAAATTAACTGAACTTAATCATGTCGTATTTGGGTTTTTTGGTAA
TAACTTCTCTGTGAACTATTAATCATCCTCTGAGTTAAATAATTGCTCCTATACTATTGAAGTATGTAGTTTTGT
ACATAACTTAGAGACTTTAGAGTCTAAGAAAATGATCTTAATTTACTTTAAGCATTGGTTATTCAAGTATTCATT
GTTGATCCTCCTATTCTCTTCCGTCTAATCTCTCACCTGCTAAAGGAGATTTACACATTAGAAAGCAAAGATTAT
TTTCATTTATCCAGATGACCATTTTCTGCCACAGGTAACATGATTGTTTGACGG

FIGURE 369

MSLWVDKYRPCSLGRLDYHKEQAAQLRNLVQCGDFPHLLVYGPSGAGKKTRIMCILRELYGVGVEKLRIEHQTIT
TPSKKKIEISTIASNYHLEVNPSDAGNSDRVVIQEMLKTVAQSQQLETNSQRDFKVVLLTEVDKLTKDAQHALRR
TMEKYMSTCRLILCCNSTSKVIPPIRSRCLAVRVPAPSIEDICHVLSTVCKKEGLNLPSQLAHRLAEKSCRNLRK
ALLMCEACRVQQYPFTADQEIPETDWEVYLRETANAIVSQQTPQRLLEVRGRLYELLTHCIPPEIIMKGLLSELL
HNCDGQLKGEVAQMAAYYEHRLQLGSKAIYHLEAFVAKFMALYKKFMEDGLEGMMF

FIGURE 370

AGTCTCCGGCGAGTTGTTGCCTGGGCTGGACGTGGTTTTGTCTGCTGCGCCCGCTCTTCGCGCTCTCGTTTCATT
TTCTGCAGCGCGCCACGAGG**ATG**GCCCACAAGCAGATCTACTACTCGGACAAGTACTTCGACGAACACTACGAGT
ACCGGCATGTTATGTTACCCAGAGAACTTTCCAAACAAGTACCTAAAACTCATCTGATGTCTGAAGAGGAGTGGA
GGAGACTTGGTGTCCAACAGAGTCTAGGCTGGGTTCATTACATGATTCATGAGCCAGAACCACATATTCTTCTCT
TTAGACGACCTCTTCCAAAAGATCAACAAAAA**TGA**AGTTTATCTGGGGATCGTCAAATCTTTTTCAAATTTAATG
TATATGTGTATATAAGGTAGTATTCAGTGAATACTTGAGAAATGTACAAATCTTTCATCCATACCTGTGCATGAG
CTGTATTCTTCACAGCAACAGAGCTCAGTTAAATGCAACTGCAAGTAGGTTACTGTAAGATGTTTAAGATAAAAG
TTCTTCCAGTCAGTTTTTCTCTTAAGTGCCTGTTTGAGTTTACTGAAACAGTTTACTTTTGTTCAATAAAGTTTG
TATGTTGCATTTAAAAAAAAAAAAAAAA

FIGURE 371

MAHKQIYYSDKYFDEHYEYRHVMLPRELSKQVPKTHLMSEEEWRRLGVQQSLGWVHYMIHEPEPHILLFRRPLPK
DQQK

FIGURE 372

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GAATTCCCAAACGTGCACAGGGGAGTGAGGGCAGGGCGCTCGCAGGGGGCACGCAGGGAGGGCCCAGGGCGCCAG
GGAGGCCGCGCCGGGCTAATCCGAAGGGGCTGCGAGGTCAGGCTGTAACCGGGTCAATGTGTGGAATATTGGGGG
GCTCGGCTGCAGACTTGGCCAAATGGACGGGACTATTAAGGAGGCTCTGTCGGTGGTGAGCGACGACCAGTCCCT
CTTTGACTCAGCGTACGGAGCGGCAGCCCATCTCCCCAAGGCCGACATGACTGCCTCGGGGAGTCCTGACTACGG
GCAGCCCCACAAGATCAACCCCCTCCCACCACAGCAGGAGTGGATCAATCAGCCAGTGAGGGTCAACGTCAAGCG
GGAGTATGACCACATGAATGGATCCAGGGAGTCTCCGGTGGACTGCAGCGTTAGCAAATGCAGCAAGCTGGTGGG
CGGAGGCGAGTCCAACCCCATGAACTACAACAGCTATATGGACGAGAAGAATGGCCCCCCTCCTCCCAACATGAC
CACCAACGAGAGGAGAGTCATCGTCCCCGCAGACCCCACACTGTGGACACAGGAGCATGTGAGGCAATGGCTGGA
GTGGGCCATAAAGGAGTACAGCTTGATGGAGATCGACACATCCTTTTTCCAGAACATGGATGGCAAGGAACTGTG
TAAAATGAACAAGGAGGACTTCCTCCGCGCCACCACCCTCTACAACACGGAAGTGCTGTTGTCACACCTCAGTTA
CCTCAGGGAAAGTTCACTGCTGGCCTATAATACAACCTCCCACACCGACCAATCCTCACGATTGAGTGTCAAAGA
AGACCCTTCTTATGACTCAGTCAGAAGAGGAGCTTGGGGCAATAACATGAATTCTGGCCTCAACAAAAGTCCTCC
CCTTGGAGGGGCACAAACGATCAGTAAGAATACAGAGCAACGGCCCCAGCCAGATCCGTATCAGATCCTGGGCCC
GACCAGCAGTCGCCTAGCCAACCCTGGAAGCGGGCAGATCCAGCTGTGGCAATTCCTCCTGGAGCTGCTCTCCGA
CAGCGCCAACGCCAGCTGTATCACCTGGGAGGGGACCAACGGGGAGTTCAAAATGACGGACCCCGATGAGGTGGC
CAGGCGCTGGGGCGAGCGGAAAAGCAAGCCCAACATGAATTACGACAAGCTGAGCCGGGCCCTCCGTTATTACTA
TGATAAAAACATTATGACCAAAGTGCACGGCAAAAGATATGCTTACAAATTTGACTTCCACGGCATTGCCCAGGC
TCTGCAGCCACATCCGACCGAGTCGTCCATGTACAAGTACCCTTCTGACATCTCCTACATGCCTTCCTACCATGC
CCACCAGCAGAAGGTGAACTTTGTCCCTCCCCATCCATCCTCCATGCCTGTCACTTCCTCCAGCTTCTTTGGAGC
CGCATCACAATACTGGACCTCCCCCACGGGGGGAATCTACCCCAACCCCAACGTCCCCGCCATCCTAACACCCA
CGTGCCTTCACACTTAGGCAGCTACTACTAGAAGCTTCTTCTAGCTGAAGCCCATCCTGCACACTTACTGGATGC
TTTGGACTCAACAGGACATATGTGGCCTTGAAGGGAAGACAAAACTGGATGTTCTTTCTTGTTGGATAGAACCTT
TGTATTTGTTCTTTAAAAACATTTTTTTTAATGTTGGTAACTTTTGCTTCCTCTACCTGAACAAAGAGATGAATA
ATTCCATGGGCCAGTATGCCAGTTTGAATTCTCAGTCTCCTAGCATCTTGTGAGTTGCATATTAAGATTACTGGA
ATGGTTAAGTCATGGTTCTGAGAAAGAAGCTGTACGTTTTCTTTATGTTTTTATGACCAAAGCAGTTTCTTGTCA
ATACACGGGGTTCAGTATGACACAGAATCATGGACTTAACCCGTCATGTTCTGGTTTGAGATTAGTGACAAATA
GAGGTGGGAAGCTTATAATCTAATTTTAGGAGGACCAAATTCAGCGGATGGCAACTGGAACATTGATTGTAAGGC
CAGTGAAGTTTTCACCCAACTGGAATTTGATGGAAAGAAGGTTTGTGTGTTAAGACGCCAAGGGCATTGCAGAA
TCCCTCTCAGTGGACAGTATGCACTCAGCTGACCACTCTCTCTAGAAATAGTCAAGATATGAACTAAGAAATTTT
AATGCAAATACATACATTCCTGAAAGACGGGGAATTAAATTACTAATTTTTTTTTTTAAATGATGACAGTGGTC
CCAGAACTTGGAAAAGTTGTAGGGATTTCTAAACTCAAGCAGATTCGCAAGTGCTGTGCGCTTGTCAGACCATCA
GACCAGGGCCAACCAATCAGAAGGCAACTTACTGTATAAATTATGCAGAGTTATTTTCCTATATCTCACAGTATT
AAAAAATAAATAATTAAAAATTAAGAATAAATAAACGAGTTGACCTCGGTCACAAAAGCAGTTTTACTATCGAAT
CAATCGCTGTTATTTTTTTTTAATGTAATTTGTACATCTTTTTTCAATCTGTACATTTGGGCTGTCTTGTATGTT
TTTATGCTCCTTTTTAAAAAGCATAATATGCCTATAGCTGAAAAGGAAACAGGGCTGTTTAAGTCACTGACTTAT
GAGAAAGCAAAGCACTGGTACAGTTATTTAACAGGCATACACAAGCAGGGAAAAGATAATCCATTTAGATCTTTA
ATGCTTTGGAAATGCGTGTAACAGTACTGCAATAATCACAGCTCTGGGAAAAACAACGAAACTTTCCCTTGTGGA
GAGGAGGGATTTTCCTGCTCTATATAAGCAACATATTTTTAGACATTAAAATATATATAATTTTGCAGGTAATTG
TTGACTTTTTTAACTATATTAAGTGTTAAGCTGACAACTGTCAAAGAAGACCATGTTGTAAAATAATTTGACTAA
ATAAATGGTTCCTTCTCTCAAAAAAAAAAAAA
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FIGURE 373

MDGTIKEALSVVSDDQSLFDSAYGAAAHLPKADMTASGSPDYGQPHKINPLPPQQEWINQPVRVNVKREYDHMNG
SRESPVDCSVSKCSKLVGGGESNPMNYNSYMDEKNGPPPPNMTTNERRVIVPADPTLWTQEHVRQWLEWAIKEYS
LMEIDTSFFQNMDGKELCKMNKEDFLRATTLYNTEVLLSHLSYLRESSLLAYNTTSHTDQSSRLSVKEDPSYDSV
RRGAWGNNMNSGLNKSPPLGGAQTISKNTEQRPQPDPYQILGPTSSRLANPGSGQIQLWQFLLELLSDSANASCI
TWEGTNGEFKMTDPDEVARRWGERKSKPNMNYDKLSRALRYYYDKNIMTKVHGKRYAYKFDFHGIAQALQPHPTE
SSMYKYPSDISYMPSYHAHQQKVNFVPPHPSSMPVTSSSFFGAASQYWTSPTGGIYPNPNVPRHPNTHVPSHLGS
YY

FIGURE 374A

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CGGCGCGGGTGTTGAGAGCGGTGTGGTAGGTGTTGTAGCCGCTATGGTGAAGTTCGCTTTGTAGCGGCCCCGGCT
AGAGAGTTGGCCTGTTCCCTGCCTTTGTGACCCGGAGGAGCTTTTGGGGGTGCGTCAAGCCCCTGGCCTGAGGCA
GCGAACTGGTTTGTGGCCTGTTTGATTCCTGTCAGAGGTTTGCTGACCCAAGACAGTATCGAAAATGCATATTAA
GTCAATTATTCTAGAGGGATTCAAGTCCTATGCTCAGAGGACCGAAGTCAATGGTTTTGACCCCCTCTTCAATGC
TATCACTGGCTTAAATGGTAGTGGGAAATCCAACATATTGGACTCCATCTGCTTTTTACTGGGCATCTCCAACCT
GTCTCAGGTTCGGGCTTCTAATTTACAAGATTTAGTTTACAAAAATGGGCAGGCTGGTATTACCAAAGCCTCTGT
GTCAATCACTTTTGATAATTCTGACAAAAAGCAAAGTCCTTTAGGATTTGAGGTTCATGATGAAATCACAGTAAC
AAGGCAGGTGGTTATTGGTGGTAGAAATAAATATTTAATCAATGGAGTCAATGCCAACAACACCAGAGTACAGGA
TCTCTTCTGTTCTGTTGGCCTTAATGTTAACAACCCTCACTTTCTCATCATGCAGGGCCGAATTACAAAAGTATT
GAATATGAAACCACCAGAGATTTTATCCATGATAGAAGAAGCAGCTGGAACCAGGATGTATGAATACAAAAAAAT
AGCTGCACAGAAAACTATAGAAAAAAAGGAGGCTAAGCTGAAAGAAATTAAGACGATACTTGAAGAAGAGATTAC
TCCAACCATTCAAAAATTAAAAGAGGAAAGATCGTCCTACTTGGAGTACCAAAAAGTAATGAGAGAAATAGAACA
TTTGAGTCGTTTATATATTGCTTATCAGTTTTTGCTGGCTGAAGATACCAAAGTACGCTCAGCTGAGGAATTAAA
AGAAATGCAAGATAAAGTTATAAAGCTTCAGGAAGAATTGTCTGAGAATGATAAAAAAATAAAAGCACTTAATCA
TGAAATAGAAGAATTGGAAAAAAGAAAAGATAAGGAAACTGGAGTTATACTTCGATCTTTAGAAGATGCTCTTGC
AGAGGCTCAGCGAGTTAATACTAAATCTCAAAGCGCATTTGATCTCAAGAAGAAAAATCTGGCATGTGAGGAAAG
CAAACGCAAAGAGCTGGAAAAAAATATGGTTGAGGACTCAAAAACTTTAGCAGCAAAGGAAAAAGAGGTTAAAAA
GATAACAGATGGACTGCATGCCCTTCAAGAAGCAAGTAATAAAGATGCTGAAGCTCTGGCAGCTGCACAGCAGCA
CTTCAATGCTGTTTCCGCTGGCCTGTCCAGTAATGAAGATGGAGCAGAAGCAACTCTTGCTGGTCAAATGATGGC
CTGTAAAAATGATATAAGTAAAGCTCAGACAGAAGCCAAACAGGCTCAGATGAAGTTGAAGCATGCTCAACAGGA
ATTAAAGAATAAACAAGCTGAAGTTAAGAAGATGGATAGTGGCTACAGGAAGGATCAAGAAGCTCTAGAAGCTGT
AAAAAGACTTAAAGAAAAACTTGAAGCTGAAATGAAAAAGCTAAATTATGAAGAAAATAAAGAGGAAAGCCTTTT
GGAAAAGCGCAGGCAGCTGTCTCGTGATATTGGTAGATTGAAAGAAACATATGAAGCTCTATTAGCCAGATTTCC
CAATCTTCGATTTGCATACAAGGATCCAGAGAAGAACTGGAATAGAAATTGTGTGAAAGGACTTGTGGCTTCTCT
GATTAGTGTGAAAGACACTTCTGCAACCACAGCTTTAGAATTAGTGGCTGGAGAACGACTCTACAATGTTGTAGT
AGACACAGAAGTTACTGGTAAAAAGCTACTAGAAAGGGGGGAACTGAAACGTCGATACACTATAATTCCACTCAA
TAAAAATTTCAGCCAGATGTATTGCACCAGAAACTCTGAGAGTTGCTCAGAATCTTGTTGGCCCTGACAACGTTCA
TGTGGCTCTTTCCTTGGTTGAATATAAACCAGAACTTCAGAAAGCAATGGAGTTTGTCTTTGGAACAACATTTGT
TTGTGACAATATGGATAATGCCAAAAAAGTGGCCTTTGATAAGAGGATAATGACTAGAACTGTAACTCTCGGAGG
TGATGTGTTTGATCCTCATGGGACATTGAGTGGAGGTGCTCGATCCCAGGCAGCTTCCATTTTAACCAAGTTTCA
AGAACTCAAAGATGTTCAGGATGAACTGAGAATCAAAGAGAATGAGCTGCGGGCTCTAGAAGAGGAATTAGCAGG
TCTTAAAAACACTGCTGAAAAGTATCGCCAACTAAAACAGCAGTGGGAGATGAAAACTGAAGAGGCAGATTTATT
ACAAACCAAGCTCCAGCAAAGCTCATATCACAAGCAACAAGAAGAATTAGATGCCCTTAAAAAAACCATTGAGGA
AAGTGAGGAGACTTTGAAAAACACTAAAGAAATCCAAAGAAAAGCAGAAGAAAAATATGAAGTATTGGAAAATAA
AATGAAAAATGCAGAAGCTGAAAGAGAGCGAGAACTGAAAGATGCTCAGAAAAAACTGGATTGTGCCAAAACAAA
GGCAGATGCATCTAGCAAGAAGATGAAAGAAAAACAACAGGAAGTTGAAGCTATCACTCTGGAACTGGAAGAGCT
CAAGAGAGAGCATACATCTTACAAACAACAGCTTGAAGCTGTAAATGAAGCTATCAAATCCTATGAAAGTCAGAT
TGAAGTAATGGCAGCTGAGGTGGCTAAAAATAAGGAGTCAGTAAATAAAGCTCAAGAAGAGGTGACCAAGCAAAA
AGAGGTGATAACAGCCCAAGACACTGTAATTAAGCTAAATATGCAGAAGTGGCAAAACACAAGGAGCAAAACAAT
GATTCTCAGCCTTAAAATTAAGGAATTAGACCACCACATCAGCAAACATAAACGGGAGGCTGAAGATGGTGCTGC
AAAGGTATCCAAAATGTTGAAAGATTATGACTGGATTAATGCAGAGAGACACCTCTTTGGCCAACCCAATAGTGC
CTATGATTTCAAAACTAACAACCCTAAAGAAGCTGGTCAGAGACTTCAGAAGTTGCAAGAAATGAAGGAGAAACT
AGGAAGAAATGTCAATATGAGAGCTATGAATGTATTGACAGAAGCTGAAGAGCGATGCAATGACTTGATGAAGAA
GAAGAGAATTGTAGAAAATGACAAATCCAAAATTCTTACAACTATAGAAGACCTTGACCAGAAGAAAAACCAAGC
CCTAAATATTGCATGGCAAAAGGTGAACAAGGACTTTGGGTCTATTTTTTCTACTCTTTTGCCTGGTGCTAATGC
TATGCTTGCACCACCAGAGGGTCAAACTGTTTTGGATGGTCTGGAGTTCAAGGTTGCCTTAGGAAATACCTGGAA
AGAAAACCTAACTGAACTTAGTGGTGGTCAGAGGTCTTTAGTGGCCTTGTCATTAATACTGTCCATGCTTCTCTT
CAAACCTGCTCCAATTTATATCCTTGATGAGGTAGATGCAGCCTTGGATCTTTCTCATACCCAAAACATTGGACA
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FIGURE 374B

GATGCTGCGTACTCATTTCACACATTCTCAGTTCATTGTGGTGTCACTAAAAGAAGGTATGTTCAACAATGCAAA
CGTTCTTTTCAAAACCAAGTTTGTGGATGGTGTTTCTACAGTAGCCAGATTTACTCAATGTCAAAATGGAAAGAT
TTCAAAGGAAGCAAAATCCAAGGCAAAACCACCCAAAGGAGCACATGTGGAAGTT**TAA**ACTACAAAGTTATTTCT
TCATCTTGACCTGTTTTTTTAAATGTAAACTTTTAAGGACTTGAGATAACTAATTTGTTTATATACAAAAATTAA
TGTTACTGTGTTACTTAACCCATGTTTTCTCTTTATATAATCACTTATCGCTTACAAATGAGCATATATTCCTCA
TCTCTTAACTAGTCTAATTATGGTCCAATTATTGTGGTTGTGATTTTATGCATATCCATCAAAATGTTTTTTTTC
TTATGCGGGTCTTTTATATATTAGGGATCCTGAGATACCCGATTCTATATGTAAAAGCTAATATACAAAAAAGCA
GATTAAATTACATGATAAATGTAGCTGAAAAAAAAAAAAAA

FIGURE 375

MHIKSIILEGFKSYAQRTEVNGFDPLFNAITGLNGSGKSNILDSICFLLGISNLSQVRASNLQDLVYKNGQAGIT
KASVSITFDNSDKKQSPLGFEVHDEITVTRQVVIGGRNKYLINGVNANNTRVQDLFCSVGLNVNNPHFLIMQGRI
TKVLNMKPPEILSMIEEAAGTRMYEYKKIAAQKTIEKKEAKLKEIKTILEEEITPTIQKLKEERSSYLEYQKVMR
EIEHLSRLYIAYQFLLAEDTKVRSAEELKEMQDKVIKLQEELSENDKKIKALNHEIEELEKRKDKETGVILRSLE
DALAEAQRVNTKSQSAFDLKKKNLACEESKRKELEKNMVEDSKTLAAKEKEVKKITDGLHALQEASNKDAEALAA
AQQHFNAVSAGLSSNEDGAEATLAGQMMACKNDISKAQTEAKQAQMKLKHAQQELKNKQAEVKKMDSGYRKDQEA
LEAVKRLKEKLEAEMKKLNYEENKEESLLEKRRQLSRDIGRLKETYEALLARFPNLRFAYKDPEKNWNRNCVKGL
VASLISVKDTSATTALELVAGERLYNVVVDTEVTGKKLLERGELKRRYTIIPLNKISARCIAPETLRVAQNLVGP
DNVHVALSLVEYKPELQKAMEFVFGTTFVCDNMDNAKKVAFDKRIMTRTVTLGGDVFDPHGTLSGGARSQAASIL
TKFQELKDVQDELRIKENELRALEEELAGLKNTAEKYRQLKQQWEMKTEEADLLQTKLQQSSYHKQQEELDALKK
TIEESEETLKNTKEIQRKAEEKYEVLENKMKNAEAERERELKDAQKKLDCAKTKADASSKKMKEKQQEVEAITLE
LEELKREHTSYKQQLEAVNEAIKSYESQIEVMAAEVAKNKESVNKAQEEVTKQKEVITAQDTVIKLNMQKWQNTR
SKTMILSLKIKELDHHISKHKREAEDGAAKVSKMLKDYDWINAERHLFGQPNSAYDFKTNNPKEAGQRLQKLQEM
KEKLGRNVNMRAMNVLTEAEERCNDLMKKKRIVENDKSKILTTIEDLDQKKNQALNIAWQKVNKDFGSIFSTLLP
GANAMLAPPEGQTVLDGLEFKVALGNTWKENLTELSGGQRSLVALSLILSMLLFKPAPIYILDEVDAALDLSHTQ
NIGQMLRTHFTHSQFIVVSLKEGMFNNANVLFKTKFVDGVSTVARFTQCQNGKISKEAKSKAKPPKGAHVEV

FIGURE 376

ACTAAGACCGCAAGGCATTCATTTCCTCCTACGGTGGATGCGGACGCCGGGAGGAGGAGAGCCCCAGAGAGAGGA
GCTGGGAGCGGAGGCGCAGGCAATGCTCAGCCCTGGATGTAGCTGAGAGGCTGGGAGAAGAGACGACCGCTGGAG
ACCGAGCGGCGTGGGGAAGACCTAGGGGGGTGGGTGGGGGAAGCAGACAGGAGAACACTCGAAATCAAGCGCTTT
ACAGATTATTTTATTTTGTATAGAGAACACGTAGCGACTCCGAAGATCAGCCCCA**ATG**AACATGTCAGTGTTGAC
TTTACAAGAATATGAATTCGAAAAGCAGTTCAACGAGAATGAAGCCATCCAATGGATGCAGGAAAACTGGAAGAA
ATCTTTCCTGTTTTCTGCTCTGTATGCTGCCTTTATATTCGGTGGTCGGCACCTAATGAATAAACGAGCAAAGTT
TGAACTGAGGAAGCCATTAGTGCTCTGGTCTCTGACCCTTGCAGTCTTCAGTATATTCGGTGCTCTTCGAACTGG
TGCTTATATGGTGTACATTTTGATGACCAAAGGCCTGAAGCAGTCAGTTTGTGACCAGGGTTTTTACAATGGACC
TGTCAGCAAATTCTGGGCTTATGCATTTGTGCTAAGCAAAGCACCCGAACTAGGAGATACAATATTCATTATTCT
GAGGAAGCAGAAGCTGATCTTCCTGCACTGGTATCACCACATCACTGTGCTCCTGTACTCTTGGTACTCCTACAA
AGACATGGTTGCCGGGGGAGGTTGGTTCATGACTATGAACTATGGCGTGCACGCCGTGATGTACTCTTACTATGC
CTTGCGGGCGGCAGGTTTCCGAGTCTCCCGGAAGTTTGCCATGTTCATCACCTTGTCCCAGATCACTCAGATGCT
GATGGGCTGTGTGGTTAACTACCTGGTCTTCTGCTGGATGCAGCATGACCAGTGTCACTCTCACTTTCAGAACAT
CTTCTGGTCCTCACTCATGTACCTCAGCTACCTTGTGCTCTTCTGCCATTTCTTCTTTGAGGCCTACATCGGCAA
AATGAGGAAAACAACGAAAGCTGAA**TAG**TGTTGGAACTGAGGAGGAAGCCATAGCTCAGGGTCATCAAGAAAAT
AATAGACAAAAGAAAATGGCACAAGGAATCACACGTGGTGCAGCTAAAACAAAACAAAACATGAGCAAACACAAA
ACCCAAGGCAGCTTAGGGATAATTAGGTTGATTTAACCCAGTAAGTTTATGATCCTTTTAGGGTGAGGACTCACT
GAGTGCACCTCCATCTCCAAGCACTGCTGCTGGAAGACCCCATTCCCTCTTTATCTATCAACTCTAGGACAAGGG
AGAACAAAAGCAAGCCAGAAGCAGAGGAGACTAATCAAAGGCAAACAAAGGCTATTAACACATAGGAAAATATGT
ATTTACTAAGTGTCACATTTCTCTAAGATGAAAGATTTTTACTCTAGAAACTGTGCGAGCACAACACACACAATC
CTTTCTAACTTTATGGACACTAAACTGGAGCCAATAGAAAAGACAAAATGAAAGAGACACAGGGTGTATATCTA
GAACGATAATGCTTTTGCAGAAACTAAAGCCTTTTTAAGAAATGCCAGCTGCTGTAGACCCCATGAGAAAAGATG
TCTTAATCATCCTTATGAAAACAGATGTAAACAACTATATTTCAACTAACTTCATCTTCACTGCATAGCCTCAGG
CTAGTGAGTTTGCCAAAACCAAAGGGGGTGAATACTTCCCCAAGATTCTTCCTGGGAGGATGGAAACAGTGCAGC
CCAGGTCCCATGGGGGCAGCTCCATCCCAGAGCATTTCTGATAGTTGAACTGTAATTTCTACTCTTAAGTGAGAT
ATGAAGTATTATCCTTTTGTTCAGTTGCCCCGGGCTTTTGAACAGAAGAGTAAATACAGAATTGAAAAAGATAAA
CACTCAACCAAACAATGTGAAAACGGGTTCTGTAGTATTTGTAAAAAGGCCCGGCCCAGGACCACTGTGAGCTGG
AAAAGGGAGAAAGGCAGTGGGAAAGAGGTGAGCCGAAGATCAATTCGACAGACAGACGGTGTGTATGCCCCTCC
CTGTTTGACTTCACACACACTCATAACTTTCCAAATGAAACCCCACAGTATAGCGCATATTTTCGATATTTTTGT
GAATTCCAAAAGGAAATCACAGGGCTGTTCGAAATATTGGGGGAACACTGTGTTTCTGCATCATCTGCATTTGCT
CCCCAAGCAATGTAGAGGTGTTTAAAGGGCCCTCTGCTGGCTGAGTGGCAATACTACAACAAACTTCAAGGCAAG
TTTGGCTGAAAACAGTTGACAACAAAGGGCCCCCATACACTTATCCCTCAAATTTTAAGTGATATGAAATACTTG
TCATGTCTTTGGCCAAATCAGAAGATATTCATCCTGCTTCAAGTCAGCTTCAGAAATGTTTTAAAAGGGACTTTA
GCTCTGGAACTCAAAATCAATTTATTAAGAGCCATATTCTTTAAAAAAAAAAGCTGGATAATATTATCTGTAATA
TTTCAGTCCTTTACAAGCCAAATACATGTGTCAATGTTTCTAGTATTTCAAAGAAGCAATTATGTAAAGTTGTTC
AATGTGACATAATAGTATTATAATTGGTTAAGTAGCTTAATGATTAGGCAAACTAGATGAAAAGATTAGGGGCTT
CCACACTGCATAGATCACACGCACATAGCCACGCATACACACACAGACACACAGATGTGGGGTACACTGAATTTC
AAAGCCCAAATGAATAGAAACACATTTTCTGGCTAGCAGAAAAAAACAAAACAAAACTGTTGTTTCTCTTTCTTG
CTTTGAGAGTGTACAGTAAAAGGGATTTTTTCGAATTATTTTTATATTATTTTAGCTTTAATTGTGCTGTCGTTC
ATGAAACAGAGCTGCTCTGCTTTTCTGTCAGAGATGGCAAGGGCTTTTTCAGCATCTCGTTTATGTGTGGAATTT
AAAAGAATAAAGTTTTATTCCATTCTGAAAAAAAAAAAAAAAAA

FIGURE 377

MNMSVLTLQEYEFEKQFNENEAIQWMQENWKKSFLFSALYAAFIFGGRHLMNKRAKFELRKPLVLWSLTLAVFSI
FGALRTGAYMVYILMTKGLKQSVCDQGFYNGPVSKFWAYAFVLSKAPELGDTIFIILRKQKLIFLHWYHHITVLL
YSWYSYKDMVAGGGWFMTMNYGVHAVMYSYYALRAAGFRVSRKFAMFITLSQITQMLMGCVVNYLVFCWMQHDQC
HSHFQNIFWSSLMYLSYLVLFCHFFFEAYIGKMRKTTKAE

FIGURE 378

CGGGCACTCACCGTGTGTAGTTGGCATCTCCGCGCGTCCGGACACCCGATCCCAGCATCCCTGCCTGCAGGACTG
TTCGTGTTCAGCTCGCGTCCTGCAGCTGTCCGAGGTGCTCCAGTTGGAGGCTGAGGTTCCCGGGCTCTGTCGCTG
AGTGGGCGGCGGCACCGGCGGAG**ATG**CCTGGGAAGAAGGCGCGCAAGAACGCTCAACCGAGCCCCGCGCGGGCTC
CAGCAGAGCTGGAAGTCGAGTGTGCTACTCAACTCAGGAGATTTGGAGACAAACTGAACTTCCGGCAGAAACTTC
TGAATCTGATATCCAAACTCTTCTGCTCAGGAACC**TGA**CTGCATCAAAAACTTGCATGAGGGGACTCCTTCAAAA
GAGTTTTCTCAGGAGGTGCACGTTTCATCAATTTGAAGAAAGACTGCATTGTAATTGAGAGGAATGTGAAGGTGC
ATTCATGGGTGCCCTTGGAAACGGAAGATGGAATACATCAAAGTGAATTTCTGTTCAAGTTTTCCCAGATTATCA
TTCTTTGGGATGAGAGAACATTATAAAACCACTTTGTTTATTTTAAAGCAAGAATGGAAGACCCTTGAAAATAAA
GAAGTAATTATTGACACATTTCTTTTTTACTTAGAGAATCGTTCTAGTGTTTTTGCCGAAGATTACCGCTGGCCT
ACTGTGAAGGTAGATGACCTGTGATTAGACTGGGCGGCTGGGGAGAAACAGTTCAGTGCATTGTTGTTGTTGCTG
TTTTTGGTGTTTTGCTTTTCAGTGCCAACTCAGCACATTGTATATGATTCGGTTTATACATATTACCTTGTTATA
ATGAAAAAACTCATTCTGAGAACACTGAAATGTTATACTCAGTGTTGATTTCTTCGGTCACTACACAACGTAAAA
TCATTTGTTTCTTTTGACTCAAATTGTATTGCTTCTGTTCAGATGATCTTTCATTCAATGTGTTCCTGTTGGGCG
TTACTAGAAACTATGGAAAACTGGAAAATAACTTTGAAAAAATTGGATAAAGTATAGGAGGGTTACTTGGGGCCA
GTAAATCAGTAGACTGAACATTCAATATAATAAAAGAACATGGGGATTTTGTATAACCAGGGATAATAAAAAGAA
AAAGAAGTTAATTTTTAATTGATGTTTTTGAAACTTAGTAGAACAAATATTCAGAAGTAACTTGATAAGATATGA
ATGTTTCTAAAGAGTTTCTAAAGGTTCGAAATGCTCCTTGTCACATTAGTGTGCATCCTACAAAAAGTGATCTCT
TAATGTAAATTAAGAATATTTTCATAATTGGAATATACTTTTCTTAAAAAAAAGGAACAGTTAGTTCTCATCTAG
AATGAAAGTTCCATATATGCATTGGTGAATATATATGTATACACATACTTACATACTTATATGGGTATCTGTATA
GATAATTTGTATTAGAGTATTATATAGCTTCTTAGTAGGGTCTCAAGTAAGTTCATTTTTTTTATCTGGGCTATA
TACAGTCCTCAAATAAATAATGTCTTGATTTTATTTCAGCAGGAATAATTTTATTTATTTTGCCTATTTATAATT
AAAGTATTTTTCTTTAGTTTGAAATGTGTATTAAAGTTACATTTTTGAGTTACAAGAGTCTTATAACTACTTGAA
TTTTTAGTTAAAATGTCTTAATGTAGGTTGTAGTCACTTTAGATGGAAAATTACCTCACATCTGTTTTCTTCAGT
ATTACTTAAGATTGTTTATTTAGTGGTAGAGAGATTTTTTTTTTCAGCCTAGAGGCAGCTATTTTACCATCTGGT
ATTTATGGTCTAATTTGTATTTAAACATATGCACACATATAAAAGTTGATACTGTGGCAGTAAACTATTAAAAGT
TTTCACTGTT

FIGURE 379

MPGKKARKNAQPSPARAPAELEVECATQLRRFGDKLNFRQKLLNLISKLFCSGT

FIGURE 380

CGGGCACTCACCGTGTGTAGTTGGCATCTCCGCGCGTCCGGACACCCGATCCCAGCATCCCTGCCTGCAGGACTG
TTCGTGTTCAGCTCGCGTCCTGCAGCTGTCCGAGGTGCTCCAGTTGGAGGCTGAGGTTCCCGGGCTCTGTCGCTG
AGTGGGCGGCGGCACCGGCGGAG**ATG**CCTGGGAAGAAGGCGCGCAAGAACGCTCAACCGAGCCCCGCGCGGGCTC
CAGCAGAGCTGGAAGTCGAGTGTGCTACTCAACTCAGGAGATTTGGAGACAAACTGAACTTCCGGCAGAAACTTC
TGAATCTGATATCCAAACTCTTCTGCTCAGGAACC**TGA**CTGCATCAAAAACTTGCATGAGGGGACTCCTTCAAAA
GAGTTTTCTCAGGAGGTGCACGTTTCATCAATTTGAAGAAAGACTGCATTGTAATTGAGAGGAATGTGAAGGTGC
ATTCATGGGTGCCCTTGGAAACGGAAGATGGAATACATCAAAGTGAATTTCTGTTCAAGTTTTCCCAGATTATCA
TTCTTTGGGATGAGAGAACATTATAAAACCACTTTGTTTATTTTAAAGCAAGAATGGAAGACCCTTGAAAATAAA
GAAGTAATTATTGACACATTTCTTTTTTACTTAGAGAATCGTTCTAGTGTTTTTGCCGAAGATTACCGCTGGCCT
ACTGTGAAGGTAGATGACCTGTGATTAGACTGGGCGGCTGGGGAGAAACAGTTCAGTGCATTGTTGTTGTTGCTG
TTTTTGGTGTTTTGCTTTTCAGTGCCAACTCAGCACATTGTATATGATTCGGTTTATACATATTACCTTGTTATA
ATGAAAAAACTCATTCTGAGAACACTGAAATGTTATACTCAGTGTTGATTTCTTCGGTCACTACACAACGTAAAA
TCATTTGTTTCTTTTGACTCAAATTGTATTGCTTCTGTTCAGATGATCTTTCATTCAATGTGTTCCTGTTGGGCG
TTACTAGAAACTATGGAAAACTGGAAAATAACTTTGAAAAAATTGGATAAAGTATAGGAGGGTTACTTGGGGCCA
GTAAATCAGTAGACTGAACATTCAATATAATAAAAGAACATGGGGATTTTGTATAACCAGGGATAATAAAAAGAA
AAAGAAGTTAATTTTTAATTGATGTTTTTGAAACTTAGTAGAACAAATATTCAGAAGTAACTTGATAAGATATGA
ATGTTTCTAAAGAGTTTCTAAAGGTTCGAAATGCTCCTTGTCACATTAGTGTGCATCCTACAAAAAGTGATCTCT
TAATGTAAATTAAGAATATTTTCATAATTGGAATATACTTTTCTTAAAAAAAAGGAACAGTTAGTTCTCATCTAG
AATGAAAGTTCCATATATGCATTGGTGAATATATATGTATACACATACTTACATACTTATATGGGTATCTGTATA
GATAATTTGTATTAGAGTATTATATAGCTTCTTAGTAGGGTCTCAAGTAAGTTCATTTTTTTTATCTGGGCTATA
TACAGTCCTCAAATAAATAATGTCTTGATTTTATTTCAGCAGGAATAATTTATTTATTTTGCCTATTTATAATT
AAAGTATTTTTCTTTAGTTTGAAATGTGTATTAAAGTTACATTTTTGAGTTACAAGAGTCTTATAACTACTTGAA
TTTTTAGTTAAAATGTCTTAATGTAGGTTGTAGTCACTTTAGATGGAAAATTACCTCACATCTGTTTTCTTCAGT
ATTACTTAAGATTGTTTATTTAGTGGTAGAGAGATTTTTTTTTTCAGCCTAGAGGCAGCTATTTTACCATCTGGT
ATTTATGGTCTAATTTGTATTTAAACATATGCACACATATAAAAGTTGATACTGTGGCAGTAAACTATTAAAAGT
TTTCACTGTT

FIGURE 381

MPGKKARKNAQPSPARAPAELEVECATQLRRFGDKLNFRQKLLNLISKLFCSGT

FIGURE 382

AGCCTGCCCTTGGGGCTGCCCACGCCCCCTTCAGATCCTTTGCTCCGGAGAGAGACCTGTCCGAGCAGAGGCCTG
GACTACATCTCCCGGCGTGCCTGGCAGTGTGGTGGCCTCTGTGCGCCGTCTGCACTCGTTGCAGGCGACG**ATG**CA
GAGGGCTGTAAGTGTGGTGGCCCGTCTGGGCTTTCGCCTGCAGGCATTCCCCCCGGCCTTGTGTCGTCCACTTAG
TTGCGCACAGGAGGTGCTCCGCAGGACACCGCTCTATGACTTCCACCTGGCCCACGGCGGGAAAATGGTGGCGTT
TGCGGGTTGGAGTCTGCCAGTGCAGTACCGGGACAGTCACACTGACTCGCACCTGCACACACGCCAGCACTGCTC
GCTCTTTGACGTGTCTCATATGCTGCAGACCAAGATACTTGGTAGTGACAGGTGTAAGCTGATGGAGAGTCTAGT
GGTTGGAGACATTGCAGAGCTAAGACCAAACCAGGGGACACTGTCGCTGTTTACCAACGAGGCTGGAGGCATCTT
AGATGACTTGATTGTAACCAATACTTCTGAGGGCCACCTGTATGTGGTGTCCAACGCTGGCTGCTGGGAGAAAGA
TTTGGCCCTCATGCAGGACAAGGTCAGGGAGCTTCAGAACCAGGGCAGAGATGTGGGCCTGGAGGTGTTGGATAA
TGCCCTGCTAGCTCTGCAAGGCCCCACTGCAGCCCAGGTACTACAGGCCGGCGTGGCAGATGACCTGAGGAAACT
GCCCTTCATGACCAGTGCTGTGATGGAGGTGTTTGGCGTGTCTGGCTGCCGCGTGACCCGCTGTGGCTACACAGG
AGAGGATGGTGTGGAGATCTCGGTGCCGGTAGCGGGGGCAGTTCACCTGGCAACAGCTATTCTGAAAAACCCAGA
GGTGAAGCTGGCAGGGCTGGCAGCCAGGGACAGCCTGCGCCTGGAGGCAGGCCTCTGCCTGTATGGGAATGACAT
TGATGAACACACTACACCTGTGGAGGGCAGCCTCAGTTGGACACTGGGGAAGCGCCGCCGAGCTGCTATGGACTT
CCCTGGAGCCAAGGTCATTGTTCCCCAGCTGAAGGGCAGGGTGCAGCGGAGGCGTGTGGGGTTGATGTGTGAGGG
GGCCCCCATGCGGGCACACAGTCCCATCCTGAACATGGAGGGTACCAAGATTGGTACTGTGACTAGTGGCTGCCC
CTCCCCCTCTCTGAAGAAGAATGTGGCGATGGGTTATGTGCCCTGCGAGTACAGTCGTCCAGGGACAATGCTGCT
GGTAGAGGTGCGGCGGAAGCAGCAGATGGCTGTAGTCAGCAAGATGCCCTTTGTGCCCACAAACTACTATACCCT
CAAG**TGA**AGCTGGCTCAGGGTGGGGCTGTCCCTTCCAGGAGTTTTGCCCCTACAAGGGGTTAGTCAAGAAGCTGA
GGCAGAACTCACTGGGGGTGGGCAGTTAAGGTGGAGGCTGATTCTAATTGTCTGGTTGAGGGGCCACACCACCTA
TTCCCCCCACCTAACTCATGCCATTCCAGCTTCCTTCAGGACCCTGCTTCTGAGTGACGGACCAGCTCACACAAT
GTCTTGTTTCAGTCCATGATCCCACTGACCTACTCTTGCCTGCTGGAGGGTAATGAGAAGCTTTGGTTCTGCCAT
CTCTCCCACTCTGCCAGGTGCTGGCTGTGGAGCAAAGGCTCACCTTTGTGGAGAGGATAAAACCTKCCCAACCTA
CCTCACCATGGTTTTTCACATTGCAAAGGGTAATAACATGGGCAGTGCGGACTTAGGCTACCCCTCCAGTTTGC
TTTCCGTAAATGCAAATTGTCCTTACTGCAAGTCAGGAATGATTGCTGACTCACAGTAGGGCTGCTATGCCTGTG
TGTAAACTTGGGGATGGCTGAGGGAACATAGACTCACTCTTCCACATTCCCAAGTTGGTCTAGTGTGCTGCCCAG
TAGCAAACCATGGCAGACTCACCACCTATTCTGAGTTCCAGGGCTGCTGTAGGGCAGGGTGGGCTTCCTCCCAGA
CTTGCCTTACCCTGGGCTGATCTTTGCCCCTGGTATGCATTAATGGACTCCACTGAATCCTGAAAAAAAAATTAA
ACTTCCTTCTTACTTGCCA

FIGURE 383

MQRAVSVVARLGFRLQAFPPALCRPLSCAQEVLRRTPLYDFHLAHGGKMVAFAGWSLPVQYRDSHTDSHLHTRQH
CSLFDVSHMLQTKILGSDRCKLMESLVVGDIAELRPNQGTLSLFTNEAGGILDDLIVTNTSEGHLYVVSNAGCWE
KDLALMQDKVRELQNQGRDVGLEVLDNALLALQGPTAAQVLQAGVADDLRKLPFMTSAVMEVFGVSGCRVTRCGY
TGEDGVEISVPVAGAVHLATAILKNPEVKLAGLAARDSLRLEAGLCLYGNDIDEHTTPVEGSLSWTLGKRRRAAM
DFPGAKVIVPQLKGRVQRRRVGLMCEGAPMRAHSPILNMEGTKIGTVTSGCPSPSLKKNVAMGYVPCEYSRPGTM
LLVEVRRKQQMAVVSKMPFVPTNYYTLK

FIGURE 384

AGCGCAGCACTCCCCGCTCGTTGGCCCGGGTATCCCAGCGCGGACCCACGCGATACGCTGACGCCCCGACGCCGA
TCCGGCCGAGCCAAGTAAGGGGGACGGCCCGAGACGGAGAAGGGAGAGAGTGGGAGTTTCCCAGCCCGCAGAACT
TTCGAAGTTGAGAAGAGAACCCCTGGAACGTGCGCTCAGCACTGGGATTTTCTGGACTCAACG**ATG**ACTCTGAAT
AATGTCACCATGCGCCAGGGCACTGTGGGCATGCAGCCACAGCAGCAGCGCTGGAGCATCCCAGCTGATGGCAGG
CATCTGATGGTCCAGAAAGAGCCCCACCAGTACAGCCACCGCAACCGCCATTCTGCTACCCCTGAGGACCACTGC
CGCCGAAGCTGGTCCTCTGACTCCACAGACTCAGTCATCTCCTCTGAGTCAGGGAACACCTACTACCGAGTGGTG
CTCATAGGGGAGCAGGGGGTGGGCAAGTCCACTCTGGCCAACATCTTTGCAGGTGTGCATGACAGCATGGACAGC
GACTGCGAGGTGCTGGGAGAAGATACATATGAACGAACCCTGATGGTTGATGGGGAAAGTGCAACGATTATACTC
CTGGATATGTGGGAAAATAAGGGGGAAAATGAATGGCTCCATGACCACTGCATGCAGGTCGGGGACGCATACCTG
ATTGTCTACTCAATCACAGACCGAGCGAGCTTCGAGAAGGCATCTGAGCTGCGAATCCAGCTCCGCAGGGCCCGG
CAGACAGAGGACATTCCCATAATTTTGGTTGGCAACAAAAGTGACTTAGTGCGGTGCCGAGAAGTGTCTGTATCA
GAAGGGAGAGCCTGTGCAGTGGTGTTTGACTGCAAGTTCATCGAGACCTCTGCAGCTGTCCAGCACAACGTGAAG
GAGCTGTTTGAGGGCATTGTGCGACAGGTGCGCCTTCGGCGGGACAGCAAGGAGAAGAATGAACGGCGGCTGGCC
TACCAGAAAAGGAAGGAGAGCATGCCCAGGAAAGCCAGGCGCTTCTGGGGCAAGATCGTGGCCAAAAACAACAAG
AATATGGCCTTCAAGCTCAAGTCCAAATCCTGCCATGACCTCTCTGTACTC**TAG**GAACCCAGGGTCACCCAGATG
TCCCTTTGATGGCCCTTGTTGAAGGCCATTGGGACCAATAATCTATATTAGATTGAATACTTAAGTTAGATGTGG
TTTCCCCCATTGTAGCAGGGAGCTAGCGTATTAGCCTTGTGGGCAACATGATGCATGGGAAATGAAAGATTTTTG
TAAAAAGTCAGTATTTATTTCCAGGAAAAGCCTGACCTTGCTATTTGAACACCCAAGACTCTTTAGAGGATGTGT
TTGGTGTTCACATGTGTTTCTTCTATTTTGGATAGTAGGGAAGTAAAGCTTACAAAGAATGCCTAGAACAAGAAC
TTTTCATCATTAAAAATTTTTCCCAGTGTTCTGATATGTGACTTTGAGGCCAATGAGTCATAAACAAATATAAGA
AAGCTGTCAATGAGTTTCTTCAAAGGAGGGAAAACTTTCTACGAATCTAAGATCCATGGAGCTAGAATTGTAGAA
CTAGGCTCATCAGAATCGTGACTATTATTGCTCCATCAAACTGTGAAAAGAAATGATGTGGACCTTGCTGGAAAC
AAAGGCTTAGCAAACAATTTTTGTTCAATGCCCACCGAGACATATAGAATTGGGAACTGATACATGTGTCCCTTA
TAGGCTCAAAAATTATATCTTACAATTTCTTATTTAGGGGGAAATTATTTGAATCAGATTCTATTTAGTCAAACC
ACCTTTTATGTTTTATTATTTTTGAATTCATGGAGCCATCATAAAAATATTTTTAAAATCAGAATTATTGATACC
CTGTAGTGCAAAATGTCAATTTTTAATGTATAATCAGAAGTCTGAATTTTCATAAAACATATAGCATAAAAACCT
CCAGTACTTTGGTTGACCCTTGTATGTCACAGCTCTGCTCTATTTATTATTATTTTGCAAAATAACCATTTTAAC
ATTTGATAAAGCATATTTATGAACATATTTCTTAATAAGAAAAATATCCATTTTATTACCATTTTCTATCTTTTT
CAAAATATGCAAGTTTTTACCTATATGTCTTATAATAAAAGAAATAAAATATTTGA

FIGURE 385

MTLNNVTMRQGTVGMQPQQQRWSIPADGRHLMVQKEPHQYSHRNRHSATPEDHCRRSWSSDSTDSVISSESGNTY
YRVVLIGEQGVGKSTLANIFAGVHDSMDSDCEVLGEDTYERTLMVDGESATIILLDMWENKGENEWLHDHCMQVG
DAYLIVYSITDRASFEKASELRIQLRRARQTEDIPIILVGNKSDLVRCREVSVSEGRACAVVFDCKFIETSAAVQ
HNVKELFEGIVRQVRLRRDSKEKNERRLAYQKRKESMPRKARRFWGKIVAKNNKNMAFKLKSKSCHDLSVL

FIGURE 386A

ACGTTGCCCGGGATGCGGACAGGTTCCGCCGCCTCCAGCGCCCCATCCTGAGCCGATTATCTGCAATTATGAAAT
GAAGTAACTCAAG**ATG**AGCAAGTTAAAAGTGATACCAGAAAAAAGCCTTACCAATAATTCTAGGATCGTAGGACT
CCTGGCTCAACTGGAGAAGATCAATGCTGAGCCTTCAGAATCAGACACTGCCCGATATGTTACATCAAAAATTCT
TCATCTGGCTCAGAGTCAAGAAAAAACAAGGAGAGAAATGACAGCCAAAGGTTCTACAGGAATGGAAATTCTGCT
GTCAACATTAGAGAACACAAAAGATCTTCAAACTACACTTAATATCTTAAGCATTCTTGTTGAGCTGGTGTCAGC
TGGTGGAGGTCGAAGAGTGAGTTTCTTAGTCACCAAAGGTGGTTCACAAATATTGTTGCAGTTACTTATGAATGC
CAGCAAAGAATCTCCCCCACATGAGGACTTAATGGTACAGATTCATTCTATTCTTGCAAAGATTGGACCAAAAGA
TAAAAAATTTGGAGTAAAGGCTAGAATTAATGGGGCTCTGAATATAACCCTGAATTTGGTCAAGCAGAATTTGCA
GAATCATCGCTTGGTTCTACCTTGCCTTCAGCTTTTACGAGTATATTCTGCCAACTCTGTGAATTCAGTATCCTT
AGGGAAAAATGGAGTTGTGGAACTGATGTTTAAAATCATTGGACCATTAGTAAGAAGAATTCCAGTCTTATAAA
GGTTGCTTTAGACACTCTTGCTGCATTGCTAAAATCAAAAACAAATGCCAGGAGAGCTGTAGCAGAGGATATGT
CCAAGTGCTTTTAACAATTTATGTAGATTGGCACCGCCATGATAACCGGCATAGAAACATGCTCATTCGGAAAGG
AATTTTACGGAGTTTAAAAAGTGTTACAAACATCAAGTTGGGAAGAAAGCATTTATTGATGCCAATGGGATGAA
AATTCTGTATAATACTTCGCAATTGCCTGTTATTCCTGTGACTGGTCCTGTGGCTCAGCTCTACAGCTTACCTCC
TGAAGTGGATGACGTAGTAGATGAAAGTGATGACAACGATGATATTGATGTAGAAGCTGAAAACGAAACTGAGAA
TGAAGATGACCTAGATCAAAATTTTAAGAATGATGATATTGAAACAGATATTAACAAACTAAAACCCCAGCAAGA
ACCGGGACGAACAATAGAAGATCTAAAAATGTATGAACACCTTTTCCCTGAGCTTGTTGATGATTTTCAGGACTA
TGATTTAATCTCCAAAGAACCAAAGCCTTTTGTATTTGAGGGAAAAGTACGTGGTCCTATTGTTGTTCCTACGGC
AGGCGAGGGAACATCTGGGAATTCTGGCAATTTAAGAAAAGTTGTAATGAAGGAGAACATATCTTCTAAAGGAGA
TGAAGGTGAAAAGAAGTCTACCTTTATGGATCTAGCAAAAGAAGATATTAAAGATAATGATAGAACATTACAACA
GCAGCCAGGTGATCAAAATAGAACTATTTCATCAGTCCATGGTTTAAACAATGATATTGTAAAGGCCTTGGACCG
AATTACATTGCAGAATATTCCTTCTCAAACAGCCCCAGGTTTTACTGCAGAAATGAAGAAGGACTGCAGTCTTCC
TCTTACTGTCCTTACCTGTGCTAAAGCATGTCCACACATGGCTACTTGTGGAAATGTTCTGTTTGAGGGAAGAAC
AGTTCAGCTAGGGAAGCTTTGCTGCACTGGAGTTGGAACTGAAGATGATGAAGATACTGAGTCAAATTCATCGGT
AGAACAAGCATCGGTTGAAGTACCTGATGGACCAACACTCCATGACCCAGACCTCTATATTGAGATTGTGAAAAA
TACGAAGTCTGTCCCAGAATATTCAGAGGTGGCTTATCCCGATTATTTTGGTCACATTCCGCCTCCATTCAAAGA
GCCTATTTTAGAAAGGCCTTATGGTGTACAAAGGACAAAAATTGCTCAAGATATTGAAAGGCTAATACATCAGAG
TGATATCATAGATCGTGTGGTATATGACTTGGATAACCCAAATTACACCATTCCAGAAGAGGGAGATATTTTGAA
ATTTAACTCCAAATTTGAGTCTGGGAATCTGCGCAAAGTAATTCAAATTAGAAAAAATGAATATGATCTTATTCT
GAACTCAGACATAAACAGCAATCATTATCATCAGTGGTTTTACTTTGAAGTCAGTGGAATGCGACCAGGTGTTGC
TTACAGGTTTAACATCATTAACTGTGAAAAGTCCAACAGTCAGTTTAATTATGGTATGCAACCACTCATGTATTC
GGTTCAGGAAGCATTAAATGCCAGACCATGGTGGATTCGTATGGGGACTGACATTTGTTACTATAAAAATCATTT
CTCAAGAAGTTCAGTTGCTGCAGGTGGGCAAAAGGGAAAATCCTACTATACAATTACATTTACTGTCAATTTTCC
ACATAAAGATGATGTTTGCTACTTTGCTTATCACTATCCATATACGTATTCAACTTTACAGATGCATCTTCAAAA
ATTGGAATCAGCACACAATCCTCAGCAAATCTATTTTCGGAAAGATGTGTTATGTGAAACCCTGTCTGGAAACAG
CTGCCCCTTGGTGACTATAACAGCAATGCCAGAGTCTAATTATTATGAACATATCTGCCATTTCAGAAATCGCCC
TTACGTTTTCTTGTCTGCTCGGGTACATCCTGGAGAAACTAATGCAAGTTGGGTTATGAAAGGAACGTTGGAATA
TCTCATGAGCAATAACCCCACTGCTCAGAGCTTACGAGAATCTTATATTTTTAAAATTGTCCCTATGTTAAATCC
AGATGGTGTCATCAATGGAAATCATCGCTGTTCTTTAAGTGGAGAGGATTTGAATAGGCAGTGGCAAAGTCCAAG
TCCGGATTTACATCCTACAATTTACCATGCTAAGGGGCTGTTGCAATACTTGGCTGCAGTGAAGCGTTTACCCTT
GGTTTATTGTGATTATCATGGCCATTCCCGAAAGAAGAATGTATTTATGTATGGTTGCAGCATCAAAGAGACAGT
GTGGCATACCAATGATAATGCAACTTCATGTGATGTTGTGGAGGATACGGGATACAGGACATTGCCTAAGATACT
GAGCCATATCGCCCCAGCATTTTGCATGAGCAGCTGTAGCTTCGTAGTGGAAAAATCTAAAGAATCCACAGCACG
TGTTGTAGTTTGGAGGGAAATAGGAGTACAAGAAGTTATACCATGGAGAGTACTTATGTGGCTGTGATCAGGG
AAAATACAAGGGTTTACAGATTGGTACCCGAGAACTGGAAGAGATGGGAGCAAAATTTTGTGTTGGTCTTTTACG
TTTGAAAAGACTGACCTCTCCATTGGAGTATAATCTGCCTTCCAGCCTGCTTGACTTTGAAAATGATTTAATTGA
ATCAAGCTGCAAAGTAACTAGCCCTACCACTTATGTCTTGGATGAAGATGAACCTCGATTCCTTGAAGAAGTTGA
TTACAGTGCAGAAAGTAATGATGAGTTAGATATTGAGTTGGCTGAAAATGTAGGAGATTATGAACCTTCTGCTCA

FIGURE 386B

AGAAGAAGTACTTTCTGACTCTGAATTATCAAGAACATACCTACCT**TGA**GCCCGCTGCCATCTCTTGTTAACTGC
AAAGAATAAATGAAATATCTTGGTTTTTATTTCCCAGGAAGCTTGAGAGAAATGAGTTTATACAGAGCTGACTCA
AAAAGACAAAAAGTAACTTGGGCCAGTTTGGTTTCAAGATAATAAATGTGTTATTAATTAATGATAAAATTGGCG
CTTGTTTTATTTTCGATATTCAATGCACTTTATGTAGCATTGAATGATCAAATATTGGATTTACCTTTAAAAAAA
AAAAACCTGAGTATCATTGCATGAATTTTTATCTCCCTATGGTTATATCCTGCATCAAGTGGATAATTTTGAAGT
GTGTTCAGAATATAAAATTGAAATTTTAGAGTTGTTGAAAATCCTGACTTGTTGAAAACTAATATATATGTACAT
GGATTTCTATAGATGTGTTTGTTTAGAAGTGGGTAGATATTGCAGATAAGACTGTTCTTCAGAATCATGTTAACT
ATTGGGTTGTGACTGAAGTAGTGCAGGGTTTGCCTTGAAACCATTACATTCTACATTTACCAAATTAAACAAATA
AAAACTGTATTAAATGTTGC

FIGURE 387

MSKLKVIPEKSLTNNSRIVGLLAQLEKINAEPSESDTARYVTSKILHLAQSQEKTRREMTAKGSTGMEILLSTLE
NTKDLQTTLNILSILVELVSAGGGRRVSFLVTKGGSQILLQLLMNASKESPPHEDLMVQIHSILAKIGPKDKKFG
VKARINGALNITLNLVKQNLQNHRLVLPCLQLLRVYSANSVNSVSLGKNGVVELMFKIIGPFSKKNSSLIKVALD
TLAALLKSKTNARRAVDRGYVQVLLTIYVDWHRHDNRHRNMLIRKGILRSLKSVTNIKLGRKAFIDANGMKILYN
TSQLPVIPVTGPVAQLYSLPPEVDDVVDESDDNDDIDVEAENETENEDDLDQNFKNDDIETDINKLKPQQEPGRT
IEDLKMYEHLFPELVDDFQDYDLISKEPKPFVFEGKVRGPIVVPTAGEGTSGNSGNLRKVVMKENISSKGDEGEK
KSTFMDLAKEDIKDNDRTLQQQPGDQNRTISSVHGLNNDIVKALDRITLQNIPSQTAPGFTAEMKKDCSLPLTVL
TCAKACPHMATCGNVLFEGRTVQLGKLCCTGVGTEDDEDTESNSSVEQASVEVPDGPTLHDPDLYIEIVKNTKSV
PEYSEVAYPDYFGHIPPPFKEPILERPYGVQRTKIAQDIERLIHQSDIIDRVVYDLDNPNYTIPEEGDILKFNSK
FESGNLRKVIQIRKNEYDLILNSDINSNHYHQWFYFEVSGMRPGVAYRFNIINCEKSNSQFNYGMQPLMYSVQEA
LNARPWWIRMGTDICYYKNHFSRSSVAAGGQKGKSYYTITFTVNFPHKDDVCYFAYHYPYTYSTLQMHLQKLESA
HNPQQIYFRKDVLCETLSGNSCPLVTITAMPESNYYEHICHFRNRPYVFLSARVHPGETNASWVMKGTLEYLMSN
NPTAQSLRESYIFKIVPMLNPDGVINGNHRCSLSGEDLNRQWQSPSPDLHPTIYHAKGLLQYLAAVKRLPLVYCD
YHGHSRKKNVFMYGCSIKETVWHTNDNATSCDVVEDTGYRTLPKILSHIAPAFCMSSCSFVVEKSKESTARVVVW
REIGVQRSYTMESTLCGCDQGKYKGLQIGTRELEEMGAKFCVGLLRLKRLTSPLEYNLPSSLLDFENDLIESSCK
VTSPTTYVLDEDEPRFLEEVDYSAESNDELDIELAENVGDYEPSAQEEVLSDSELSRTYLP

FIGURE 388

GGCGGACGCTGGAAAGCGCCGTTCCTGACTCTAATGTACTTAGACACTTGAAGCCACAAAAGGATTTATCCCCGA
GGTTCCTCATCTGCTCGCGAGGATGCCTTTTCTCTTCTGCCTTGCGAAATAACAGCAGCCTAGCTGTTGCCCGTG
ACCAGTGAGAAAGGCAGCGTCGCGGGCTGATTAGGTTTCACCCAAAGGGTGCCGGCGCCGAATTGGTTTCTAACG
AGAACTTTTAAAATGATCCGTTCCAAAAAAGGGTAGGAGCCGCGAGACCCTCCAACTGCCCAGAGAAAACAAGTC
TCGTCTGGCAAAGTTCTCGGCCCACGCGGTCCGCGGCCAAGGGCCAACGGTCCCTCGCCCCACGTTGCCGCAGCA
CTGCGCGTGCGCGAGCCGCTGTCAAACGCGCTGACGGAGGCCGAGAAGAAAAAAGGCGGGAGCCGTCAATCCCG
GGTTGAGCAAA**ATG**GCGCGGGAGAAGGAGATGCAGGAGTTCACCCGTAGCTTCTTCCGAGGCCGCCCGGACCTCA
GCACGCTTACGCATTCCATCGTGCGGCGGAGGTACTTAGCTCACTCGGGCCGCAGCCACCTGGAGCCCGAGGAGA
AGCAGGCACTGAAGCGGCTGGTGGAGGAGGAGCTGCTGAAGATGCAGGTGGATGAAGCCGCTTCCAGGGAAGACA
AACTGGACCTTACCAAGAAGGGCAAGAGGCCTCCCACCCCTTGTAGCGACCCGGAGAGAAAAAGGTTCCGCTTCA
ATTCAGAGTCGGAGTCCGGCTCTGAAGCCTCCAGCCCAGACTACTTTGGACCCCCAGCAAAGAATGGGGTGGCAG
CAGAAGTCAGCCCAGCCAAAGAGGAGAATCCAAGGCGAGCCTCAAAGGCAGTTGAGGAGAGCAGTGATGAGGAAC
GGCAGAGGGACCTGCCCGCACAGAGGGGAGAGGAGAGCAGTGAGGAGGAGGAAAAGGGGTACAAGGGGAAGACTA
GGAAGAAACCTGTGGTAAAGAAGCAGGCACCAGGCAAGGCCTCAGTCAGTAGGAAGCAGGCCAGGGAAGAAAGTG
AGGAGAGCGAGGCAGAACCCGTTCAGAGGACAGCAAAGAAGGTGGAGGGAAATAAAGGAACTAAAAGCCTGAAGG
AAAGTGAACAGGAGAGTGAAGAGGAGATCCTAGCCCAGAAGAAAGAGCAGAGAGAGGAGGAAGTGGAGGAGGAAG
AGAAAGAAGAGGATGAGGAAAAGGGGGGATTGGAAACCCAGAACCAGGAGCAATGGCCGGAGAAAGTCAGCTAGGG
AGGAGAGGAGCTGTAAGCAGAAAAGCCAGGCAAAGAGGCTCTTGGGAGACTCAGACAGCGAGGAAGAGCAGAAAG
AGGCAGCCAGCAGTGGGGATGACAGTGGGAGAGATAGAGAACCCCCAGTGCAGAGGAAGAGTGAGGACAGGACCC
AGCTTAAGGGTGGGAAGAGGTTGAGTGGAAGCAGCGAGGACGAGGAAGACAGTGGGAAGGGGGAACCCACAGCTA
AAGGCTCTAGAAAGATGGCCAGACTGGGCAGCACCAGTGGTGAGGAAAGTGACTTGGAGAGGGAGGTAAGTGACA
GCGAGGCAGGGGGAGGCCCCCAGGGGGAGAGGAAGAACCGCTCTTCCAAGAAGAGCTCCAGGAAAGGCAGGACAC
GAAGCTCCTCTTCCTCCTCAGATGGAAGTCCAGAGGCCAAAGGAGGGAAGGCTGGCTCAGGTCGCCGTGGAGAGG
ACCACCCGGCTGTGATGAGGCTGAAGCGCTACATTCGGGCCTGTGGTGCCCATCGAAACTACAAGAAGCTGTTGG
GCTCCTGTTGCTCACACAAGGAGCGCCTGAGTATCCTCCGGGCAGAACTGGAAGCGCTAGGCATGAAGGGTACCC
CTTCCCTAGGGAAGTGTCGGGCCCTGAAGGAGCAGAGGGAGGAGGCAGCTGAGGTGGCCTCCTTGGATGTTGCGA
ACATCATCAGTGGCTCGGGCCGGCCACGCAGACGTACAGCCTGGAACCCTTTAGGAGAAGCAGCACCCCCAGGGG
AGCTGTACCGACGGACCCTGGACTCAGATGAAGAGCGGCCCCGTCCCGCACCCCCAGACTGGTCACATATGCGTG
GCATCATCAGCAGTGATGGCGAGAGTAAC**TGA**GCTCTGCCACCCCCAGGAGGGACCCTTGATACATGTACAAAGC
ATACATAGCACCCCTTGCCCTGTGTCTGTGGAACAGAAGCAGCTTCCTTCAGAGAAGACTGCAGCTCCCAAGGAC
ACAAGCTGTTGGGATGCTACTTCTCAGCTTCACGCTGTCCCTTTAAGGTGTTTATTTTTTAAGACTCAATAAAGG
AGTGTTTTTAATCACCTCAAAAAAAAA

FIGURE 389

MAREKEMQEFTRSFFRGRPDLSTLTHSIVRRRYLAHSGRSHLEPEEKQALKRLVEEELLKMQVDEAASREDKLDL
TKKGKRPPTPCSDPERKRFRFNSESESGSEASSPDYFGPPAKNGVAAEVSPAKEENPRRASKAVEESSDEERQRD
LPAQRGEESSEEEEKGYKGKTRKKPVVKKQAPGKASVSRKQAREESEESEAEPVQRTAKKVEGNKGTKSLKESEQ
ESEEEILAQKKEQREEEVEEEEKEEDEEKGDWKPRTRSNGRRKSAREERSCKQKSQAKRLLGDSDSEEEQKEAAS
SGDDSGRDREPPVQRKSEDRTQLKGGKRLSGSSEDEEDSGKGEPTAKGSRKMARLGSTSGEESDLEREVSDSEAG
GGPQGERKNRSSKKSSRKGRTRSSSSSSDGSPEAKGGKAGSGRRGEDHPAVMRLKRYIRACGAHRNYKKLLGSCC
SHKERLSILRAELEALGMKGTPSLGKCRALKEQREEAAEVASLDVANIISGSGRPRRRTAWNPLGEAAPPGELYR
RTLDSDEERPRPAPPDWSHMRGIISSDGESN

FIGURE 390

CTCCCTTTGGGCAAGGACCTGAGACCCTTGTGCTAAGTCAAGAGGCTCAATGGGCTGCAGAAGAACTAGAGAAGG
ACCAAGCAAAGCC**ATG**ATATTTCCATGGAAATGTCAGAGCACCCAGAGGGACTTATGGAACATCTTCAAGTTGTG
GGGGTGGACAATGCTCTGTTGTGATTTCCTGGCACATCATGGAACCGACTGCTGGACTTACCATTATTCTGAAAA
ACCCATGAACTGGCAAAGGGCTAGAAGATTCTGCCGAGACAATTACACAGATTTAGTTGCCATACAAAACAAGGC
GGAAATTGAGTATCTGGAGAAGACTCTGCCTTTCAGTCGTTCTTACTACTGGATAGGAATCCGGAAGATAGGAGG
AATATGGACGTGGGTGGGAACCAACAAATCTCTTACTGAAGAAGCAGAGAACTGGGGAGATGGTGAGCCCAACAA
CAAGAAGAACAAGGAGGACTGCGTGGAGATCTATATCAAGAGAAACAAAGATGCAGGCAAATGGAACGATGACGC
CTGCCACAAACTAAAGGCAGCCCTCTGTTACACAGCTTCTTGCCAGCCCTGGTCATGCAGTGGCCATGGAGAATG
TGTAGAAATCATCAATAATTACACCTGCAACTGTGATGTGGGGTACTATGGGCCCCAGTGTCAGTTTGTGATTCA
GTGTGAGCCTTTGGAGGCCCCAGAGCTGGGTACCATGGACTGTACTCACCCTTTGGGAAACTTCAGCTTCAGCTC
ACAGTGTGCCTTCAGCTGCTCTGAAGGAACAAACTTAACTGGGATTGAAGAAACCACCTGTGGACCATTTGGAAA
CTGGTCATCTCCAGAACCAACCTGTCAAGTGATTCAGTGTGAGCCTCTATCAGCACCAGATTTGGGGATCATGAA
CTGTAGCCATCCCCTGGCCAGCTTCAGCTTTACCTCTGCATGTACCTTCATCTGCTCAGAAGGAACTGAGTTAAT
TGGGAAGAAGAAACCATTTGTGAATCATCTGGAATCTGGTCAAATCCTAGTCCAATATGTCAAAAATTGGACAA
AAGTTTCTCAATGATTAAGGAGGGTGATTATAACCCCCTCTTCATTCCAGTGGCAGTCATGGTTACTGCATTCTC
TGGGTTGGCATTTATCATTTGGCTGGCAAGGAGATTAAAAAAAGGCAAGAAATCCAAGAGAAGTATGAATGACCC
ATAT**TAA**ATCGCCCTTGGTGAAAGAAAATTCTTGGAATACTAAAAATCATGAGATCCTTTAAATCCTTCCATGAA
ACGTTTTGTGTGGTGGCACCTCCTACGTCAAACATGAAGTGTGTTTCCTTCAGTGCATCTGGGAAGATTTCTACC
TGACCAACAGTTCCTTCAGCTTCCATTTCGCCCCTCATTTATCCCTCAACCCCCAGCCCACAGGTGTTATACAG
CTCAGCTTTTTGTCTTTTCTGAGGAGAAACAAATAAGACCATAAAGGGAAAGGATTCATGTGGAATATAAAGATG
GCTGACTTTGCTCTTTCTTGACTCTTGTTTTCAGTTTCAATTCAGTGCTGTACTTGATGACAGACACTTCTAAAT
GAAGTGCAAATTTGATACATATGTGAATATGGACTCAGTTTTCTTGCAGATCAAATTTCACGTCGTCTTCTGTAT
ACTGTGGAGGTACACTCTTATAGAAAGTTCAAAAAGTCTACGCTCTCCTTTCTTTCTAACTCCAGTGAAGTAATG
GGGTCCTGCTCAAGTTGAAAGAGTCCTATTTGCACTGTAGCCTCGCCGTCTGTGAATTGGACCATCCTATTTAAC
TGGCTTCAGCCTCCCCACCTTCTTCAGCCACCTCTCTTTTTCAGTTGGCTGACTTCCACACCTAGCATCTCATGA
GTGCCAAGCAAAAGGAGAGAAGAGAGAAATAGCCTGCGCTGTTTTTTAGTTTGGGGGTTTTGCTGTTTCCTTTTA
TGAGACCCATTCCTATTTCTTATAGTCAATGTTTCTTTTATCACGATATTATTAGTAAGAAACATCACTGAAAT
GCTAGCTGCAAGTGACATCTCTTTGATGTCATATGGAAGAGTTAAAACAGGTGGAGAAATTCCTTGATTCACAAT
GAAATGCTCTCCTTTCCCCTGCCCCCAGACCTTTTATCCACTTACCTAGATTCTACATATTCTTTAAATTTCATC
TCAGGCCTCCCTCAACCCCACCACTTCTTTTATAACTAGTCCTTACTAATCCAACCCATGATGAGCTCCTCTTC
CTGGCTTCTTACTGAAAGGTTACCCTGTAACATGCAATTTTGCATTTGAATAAAGCCTGCTTTTTAAGTGTTAA

FIGURE 391

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MIFPWKCQSTQRDLWNIFKLWGWTMLCCDFLAHHGTDCWTYHYSEKPMNWQRARRFCRDNYTDLVAIQNKAEIEY
LEKTLPFSRSYYWIGIRKIGGIWTWVGTNKSLTEEAENWGDGEPNNKKNKEDCVEIYIKRNKDAGKWNDDACHKL
KAALCYTASCQPWSCSGHGECVEIINNYTCNCDVGYYGPQCQFVIQCEPLEAPELGTMDCTHPLGNFSFSSQCAF
SCSEGTNLTGIEETTCGPFGNWSSPEPTCQVIQCEPLSAPDLGIMNCSHPLASFSFTSACTFICSEGTELIGKKK
TICESSGIWSNPSPICQKLDKSFSMIKEGDYNPLFIPVAVMVTAFSGLAFIIWLARRLKKGKKSKRSMNDPY
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FIGURE 392A

AACTCATGCGGCCAGAGCGGGAAAGAGACTCGTCTTTGCGTCCGAGTTCTGGAGCCGCCGCACCCCGACTCCTGG
GGCCGCGGCAGCGGCTGCGAGGGGACGGGCGTCCGCTGTCTCCTGGGTTCCCCTCGTAGCGACCCGCGGGATCGG
AAAAAAAGGAGAAG**ATG**GAGGAGGAGGGTGGCAGCAGCGGCGGCGCCGCGGGGACCAGCGCGGACGGCGGCGACG
GAGGAGAGCAGCTCCTCACTGTCAAGCACGAGCTGCGGACTGCTAATTTGACAGGACATGCTGAGAAGGTGGGAA
TAGAAAATTTTGAGCTCCTGAAGGTCCTAGGAACTGGAGCTTATGGAAAAGTATTTCTAGTTCGTAAAATAAGTG
GCCATGATACTGGAAAGCTGTATGCCATGAAAGTTTTGAAAAAGGCAACAATCGTTCAAAAGGCCAAAACCACAG
AGCATACAAGGACAGAACGACAAGTCCTGGAACACATTAGGCAGTCGCCATTTTTGGTAACATTACATTATGCTT
TCCAGACAGAAACCAAACTTCATCTCATTTTAGATTATATAAATGGTGGTGAACTTTTTACTCATCTTTCTCAAA
GAGAGCGTTTCACAGAGCATGAGGTGCAGATTTATGTTGGAGAGATTGTGCTTGCCCTCGAACATCTCCACAAGT
TGGGGATTATATATCGTGATATTAAGCTTGAGAATATTCTACTTGATTCTAATGGCCATGTGGTGCTGACAGATT
TTGGTCTGAGTAAGGAGTTTGTGGCTGATGAAACTGAAAGAGCATATTCCTTTTGTGGAACTATTGAATACATGG
CACCAGATATTGTCAGAGGGGGAGATTCAGGACATGACAAGGCAGTTGACTGGTGGAGTTTGGGTGTTCTAATGT
ATGAATTACTAACTGGAGCATCTCCTTTCACTGTTGATGGAGAAAAAAATTCCCAAGCTGAGATATCTAGGAGAA
TATTAAAAAGTGAGCCTCCATATCCCCAAGAAATGAGTGCTTTAGCGAAAGACCTAATTCAGCGTCTTTTGATGA
AAGATCCCAAGAAGAGATTGGGATGTGGTCCACGTGATGCAGATGAAATCAAAGAACATCTCTTCTTTCAGAAAA
TAAATTGGGATGATTTAGCCGCCAAAAAAGTGCCTGCACCATTTAAGCCAGTCATTCGAGATGAATTAGATGTGA
GTAACTTTGCAGAAGAGTTCACAGAAATGGATCCCACTTATTCTCCCGCAGCCCTGCCCCAGAGTTCTGAGAAGC
TGTTTCAGGGCTATTCCTTTGTTGCTCCTTCCATCCTATTCAAGCGTAATGCAGCTGTCATAGACCCTCTTCAGT
TTCACATGGGAGTTGAACGTCCTGGAGTGACAAATGTTGCCAGGAGTGCAATGATGAAGGACTCTCCATTCTATC
AACACTATGACCTAGATTTGAAGGACAAACCCCTGGGAGAAGGTAGTTTTTCAATTTGTCGAAAGTGTGTGCATA
AAAAAAGTAACCAAGCTTTGCAAGTCAAAATAATCAGCAAAAGGATGGAAGCCAATACTCAAAAGGAAATAACAG
CTCTGAAACTCTGTGAAGGACACCCCAATATTGTGAAGTTGCATGAAGTTTTTCATGATCAGCTTCACACGTTTC
TAGTGATGGAACTTCTGAATGGAGGAGAACTGTTTGACGCATTAAGAAAAAAGAAGCACTTCAGTGAGACGGAAG
CCAGCTACATCATGAGGAAGCTTGTTTCAGCTCTAAGCCACATGCATGATCTTGGAGTGGTGCACAGGGATCTGA
AACCTGAGAATTTATTGTTCACCGATGAAAATGACAATTTGGAAATTAAAATAATTGATTTTGGATTTGCACGGC
TAAAGCCACCGGATAATCAGCCCCTGAAGACTCCATGCTTCACCCTTCATTCATGCCGCCCAGAGCTCTTGAATC
AGAACGGCTACGATGAGTCCTGTGACCTGTGGAGCTTGGGCGTCATTTTGTACACAATGTTGTCAGGACAGGTTC
CCTTCCAATCTCATGACCGAAGTTTGACGTGTACCAGCGCGGTGGAAATCATGAAGAAAATTAAAAAGGGAGATT
TCTCCTTTGAAGGAGAAGCCTGGAAGAATGTATCCCAAGAGGCTAAAGATTTGATCCAAGGACTTCTCACAGTAG
ATCCAAACAAAAGGCTTAAAATGTCTGGCTTGAGGTACAATGAATGGCTACAAGATGGAAGTCAGCTGTCCTCCA
ATCCTCTGATGACTCCGGATATTCTAGGATCTTCCGGAGCTGCCGTGCATACCTGTGTGAAAGCAACCTTCCACG
CCTTTAACAAATACAAGAGAGAGGGGTTTTGCCTTCAGAATGTTGATAAGGCCCCTTTGGCTAAGAGAAGAAAAA
TGAAAAAGACTAGCACCAGTACCGAGACGCGCAGAGGGTCCAGTGAGAGTTCCCATTCTTCTTCCTCTCATTCTC
ACGGTAAAACTACACCCACCAAGACACTGCAGCCCAGCAATCCTGCCGACAGCAATAACCCGGAGACCCTCTTCC
AGTTCTCGGACTCAGAGCTTAGGCATGGTAGGAGTGATCAG**TGA**TCCATTGCACCTTTATTCCCTCAGCATATGC
CTGAGTCGATCTTTTATGCTTTTAAAAATGTTTCCCGTTGGTCTCATTGGAATCTGCCTCCTAATGATTTTTTTC
AGGAAAACCTGTTTGGTTATCCTCATTCAAAAGCACTGGACAGAGAATGTTACTGTGAATAGAGCACATATTACT
CTTTTTACGAACCTAGCATGATGCCAACAAGACTATTCTTGAAAGAGCAAAGGTTCCTGTAAATTTAATTAGGGC
TAGATTTGAGCTGCTTGTAAGTCACAGGTTTTCCAGATGTCTGCCAACAAGAAATGACTCATACTGTGATGATAC
CTTTTGCTTTGCCTTGTGGACAATGTGGGTTTTTGAAATTTGCACCCTTCAAACAATGATTTATCAGAGAAAGGG
GTCTGTTTTCAAAAAAGATTCTGTAATGAATTTTATGTGTGGCATATACTTATTTCTTGAGAGAAGATTTTAACT
TATTGTTTTTATTTTATGGTTACATATGATGATAACCTGCTATTATTAAACTTTTTCTAAAAAGTGAAAAAAAAT
AAAAAAGATATAAGAACTCAAGGTCCCATACTCTGTATTCGGGATCCATCTGAGATGCATGCTAAGCTATGTGTA
TGTTTTTAATTTTGCACTGCTCTTTCCTGGCAATTTGTTTTAATGGTTATTGCAGAATATTAAGGTACATGTCTC
TCTGTTTTAAGTAATATTGCACTTTATAAAAAGTATGAATAAAGCAAACTATTTTATAAAGTGCACTGTTTAAA
GCATTTGCACTGTATTTTTGCCATTTATTTTCATTTTCTACTTTAAATTTGTCCTCACATGCCTCTTCTACTTTG
TATGCAACAAGTAGAATGGGGCCTTGTTGTGTCATGTAGTCAGCCACTTATGCACCAATGTGAGGAAAACCTAAA
GGGAAATTAAACTAAACACTGTGCTTCATATTTGTACACTGTGTTGTACTACAGTGAGGAATTTCCTCCTGTAGT

FIGURE 392B

CATATATTATGTACATAATATTTTAGAATCATACCTATGACTTGTTTGGAAATTTTTCTGTTGAATTTTAAATCC
AGAAAGCATATTTTATAAACTTATGCAGAGCACTTTTATTGCTCAAAAGTTCTGAATTCATACAGAAAACAAGTA
CTATGTGATGAAAACATTTCATTGAAAGATTGCGGCATTTAAAAATACAATTAATTCGTTCCCTATGCAAAAAAA
AAAAAA

FIGURE 393

MEEEGGSSGGAAGTSADGGDGGEQLLTVKHELRTANLTGHAEKVGIENFELLKVLGTGAYGKVFLVRKISGHDTG
KLYAMKVLKKATIVQKAKTTEHTRTERQVLEHIRQSPFLVTLHYAFQTETKLHLILDYINGGELFTHLSQRERFT
EHEVQIYVGEIVLALEHLHKLGIIYRDIKLENILLDSNGHVVLTDFGLSKEFVADETERAYSFCGTIEYMAPDIV
RGGDSGHDKAVDWWSLGVLMYELLTGASPFTVDGEKNSQAEISRRILKSEPPYPQEMSALAKDLIQRLLMKDPKK
RLGCGPRDADEIKEHLFFQKINWDDLAAKKVPAPFKPVIRDELDVSNFAEEFTEMDPTYSPAALPQSSEKLFQGY
SFVAPSILFKRNAAVIDPLQFHMGVERPGVTNVARSAMMKDSPFYQHYDLDLKDKPLGEGSFSICRKCVHKKSNQ
ALQVKIISKRMEANTQKEITALKLCEGHPNIVKLHEVFHDQLHTFLVMELLNGGELFDALRKKKHFSETEASYIM
RKLVSALSHMHDLGVVHRDLKPENLLFTDENDNLEIKIIDFGFARLKPPDNQPLKTPCFTLHSCRPELLNQNGYD
ESCDLWSLGVILYTMLSGQVPFQSHDRSLTCTSAVEIMKKIKKGDFSFEGEAWKNVSQEAKDLIQGLLTVDPNKR
LKMSGLRYNEWLQDGSQLSSNPLMTPDILGSSGAAVHTCVKATFHAFNKYKREGFCLQNVDKAPLAKRRKMKKTS
TSTETRRGSSESSHSSSSHSHGKTTPTKTLQPSNPADSNNPETLFQFSDSELRHGRSDQ

FIGURE 394

TATATTGGCAGTTATTGAGGGTAAAGCAATATATTGTAACAGAATGTATAAATATTTTTGATAAAACAGTCTATA
TTTTATTAAAAAATGAATTATAACCCATTTTCAGTTTTGCCTGCATCATAAGAGTGAGCACTCCATTGCTTTCTT
TCCTGGCCACACTGCTACAATCCAGCACTAACTATCCATGTCCAGGGTAAGGATCGAGATCGAGAAGCCCACACT
GCCAGTGAAAAAGCTACGTCTTTACTGCATAAATTAGAGGAAGCAATTTCGGAACAACGGAACCTTCAAACTATA
AATACTGAATTATCGAACACTTGCCAGGCACTTCAGCAGAAGACAAGGAAACTGAAGAAGCTTTTTAGATGAGGA
ATTTCCTCACTATGATTCCCTGTCCTGCGCAGATGCAATTCAACAACCTCTTCAAGAAAAATTGAAGCAGTGTTG
CCACAAACTATATGGTGGTCAAGAAGCAAGAATACATCAGACACCCCTGACCTTGAAACATACGTGCTGGTACAC
ACCTCTGCTGGATGCCTTATCTCTGGATAGTTTTACAGCAGTTCCAACCCTGGAATCAACACCTTTCTCAGGTGT
AGCCAACCAAATCCACACTCTGTGTGAAAGGCCCACATATGGAGAAGTAAAGGATGGTGCTTTGGATGTAAAAAG
ACAACACAAGTGCCCAGGCCCCACAAGTGGCCCCAGCCCAGGAACGAATCTCTCAGGCTGCATCAGGATGAATGA
TGACCCAAGTATGGAAGAGAATGGTGTTGAACGCGTGTGTCCTGAGAGCCTGCTGCAGTCCAGGGGATATTCCTC
ACTACCATTACCCAGACACACTTCATCGACAGACGGTACTATAACTTCAAGTGATCCTGGATTAGAAATTCTGAA
TATGGCTTCTTGTGACCTTGACAGAAACTCGCTCTGTAAGAAAGAGGAGGATACAAGATCAGCTTCTCCCACGAT
AGAGGCCCAAGGCACAAGTCCAGCTCATGATAATATTGCATTCCAAGACTCTACGAGTAAGGATAAAACCATATT
AAATCTGGAAGCCAAAGAGGAACCAGAAACAATAGAAGAACATAAAAAAGAACATGCTTCAGGAGACTCTGTGGT
TTCCCCTCTTCCTGTAACCACTGTGAAATCGGTTAACGTTAGACAAAGTGAGAACACTTCTGCTAATGAGAAGGA
GGTGGAGGCAGAATTTCTCAGATTATCTTTGGGATTTAAGTGTGACTGGTTTACCTTGGAGAAGAGAGTGAAGCT
TGAAGAGAGGTCCCGTGACTGGGCAGAAGAAAATTTGAAGAAAGAAATCACTAACTCTTTAAAACTATTAGAGTC
TTTAACACCTCTGTGTGAAGATGACAACCAGGCACAGGAAATCATTAAGAAGCTGGAGAAGAGTATAAAGTTTCT
TAGCCAGTGTGCAGCACGAGTGGCCAGTAGGGCTGAGATGTTGGGAGCCATCAATCAGGAAAGCCGGGTTAGTAA
AGCAGTTGAAGTGATGATTCAGCACGTAGAAAACTTGAAGAGGATGTATGCCAAAGAGCACGCTGAATTAGAAGA
ACTGAAACAGGTTCTTCTGCAGAATGAAAGGTCTTTCAATCCTCTTGAAGATGATGATGACTGCCAAATTAAAAA
ACGTTCAGCTTCTCTAAACTCCAAGCCATCTTCTCTACGAAGAGTGACTATTGCCTCTTTACCCAGAAATATTGG
AAATGCAGGAATGGTGGCTGGGATGGAAAATAATGATCGATTCAGTAGAAGGTCAAGCAGTTGGCGTATTTTGGG
GTCAAAGCAGAGTGAACACCGTCCCTCATTACCTCGATTTATTAGCACCTATTCCTGGGCAGATGCTGAAGAAGA
AAAATGTGAACTAAAAACTAAAGATGACTCAGAGCCATCTGGAGAAGAAACAGTAGAAAGGACAAGGAAGCCAAG
TCTTTCTGAAAAGAAAAATAATCCATCAAAGTGGGATGTCTCTTCAGTTTATGACACAATAGCTTCCTGGGCAAC
AAATCTCAAGTCCTCCATCAGAAAGGCTAATAAGGCCCTCTGGCTCTCTATTGCATTCATTGTACTGTTTGCAGC
TTTGATGAGCTTCCTCACAGGCCAATTATTCCAGAAGTCTGTGGATGCCGCTCCCACACAGCAAGAGGACTCATG
GACGTCTCTAGAACATATCTTGTGGCCATTTACCAGACTCCGACACAATGGGCCACCACCAGTG**TGA**CAGCAGGA
CATCCTAATATATGGATCTTGATTTTTAAGTTTCAGTATCTGAACTTCGTAAATTAGTAACTTTTAGCTGGGAAA
GTATAGCATGAAACCAGAGGTTCTCAGAATGACCGTAAGATAGCTTACATTTCCTCTTTTTGCCTTTATCTCCCC
AACTAAAATACAATGGG

FIGURE 395

LESTPFSGVANQIHTLCERPTYGEVKDGALDVKRQHKCPGPTSGPSPGTNLSGCIRMNDDPSMEENGVERVCPES
LLQSRGYSSLPLPRHTSSTDGTITSSDPGLEILNMASCDLDRNSLCKKEEDTRSASPTIEAQGTSPAHDNIAFQD
STSKDKTILNLEAKEEPETIEEHKKEHASGDSVVSPLPVTTVKSVNVRQSENTSANEKEVEAEFLRLSLGFKCDW
FTLEKRVKLEERSRDWAEENLKKEITNSLKLLESLTPLCEDDNQAQEIIKKLEKSIKFLSQCAARVASRAEMLGA
INQESRVSKAVEVMIQHVENLKRMYAKEHAELEELKQVLLQNERSFNPLEDDDDCQIKKRSASLNSKPSSLRRVT
IASLPRNIGNAGMVAGMENNDRFSRRSSSWRILGSKQSEHRPSLPRFISTYSWADAEEEKCELKTKDDSEPSGEE
TVERTRKPSLSEKKNNPSKWDVSSVYDTIASWATNLKSSIRKANKALWLSIAFIVLFAALMSFLTGQLFQKSVDA
APTQQEDSWTSLEHILWPFTRLRHNGPPPV

FIGURE 396A

CGAAAGGCCGGCCTTGGCTGCGACAGCCTGGGTAAGAGGTGTAGGTCGGCTTGGTTTTCTGCTACCCGGAGCTGG
GCAAGCGGGTGGGAGAACAGCGAAGACAGCGTGAGCCTGGGCCGTTGCCTCGAGGCTCTCGCCCGGCTTCTCTTG
CCGACCCGCCACGTTTGTTTGGATTTAATCTTCAGGTTGCCGGCGCCCGCCCGCCCGCTGGCCTCGCGGTGTGAG
AGGGAAGCACCCGTGCCTGTGGCTGGTGGCTGGCGCCTGGAGGGTCCGCACACCCGCCCGGCCGCGCCGCTTTGC
CCGCGGCAGCCGCGTCCCTGAACCGCGGAGTCGTGTTTGTGTTTGACCCGCGGGCGCCGGTGGCGCGCGGCCGAG
GCCGGTGTCGGCGGGGCGGGGCGGTCGCGGCGGAGGCAGAGGAAGAGGGAGCGGGAGCTCTGCGAGGCCGGGCGC
CGCC**ATG**GAACTGGGCCCGAGCCCCGCACCGCGCCGCCTGCTCTTCGCCTGCAGCCCCCCTCCCGCGTCGCAGCC
CGTCGTGAAGGCGCTATTTGGCGCTTCAGCCGCCGGGGGACTGTCGCCTGTCACCAACCTGACCGTCACTATGGA
CCAGCTGCAGGGTCTGGGCAGTGATTATGAGCAACCACTGGAGGTGAAGAACAACAGTAATCTGCAGAGAATGGG
CTCCTCCGAGTCAACAGATTCAGGTTTCTGTCTAGATTCTCCTGGGCCATTGGACAGTAAAGAAAACCTTGAAAA
TCCTATGAGAAGAATACATTCCCTACCTCAAAAGCTGTTGGGATGTAGTCCAGCTCTGAAGAGGAGCCATTCTGA
TTCTCTTGACCATGACATCTTTCAGCTCATCGACCCAGATGAGAACAAGGAAATGAAGCCTTTGAGTTTAAGAA
GCCAGTAAGACCTGTATCTCGTGGCTGCCTGCACTCTCATGGACTCCAGGAGGGTAAAGATCTCTTCACACAGAG
GCAGAACTCTGCCCAGCTCGGAATGCTTTCCTCAAATGAAAGAGATAGCAGTGAACCAGGGAATTTCATTCCTCT
TTTTACACCCCAGTCACCTGTGACAGCCACTTTGTCTGATGAGGATGATGGCTTCGTGGACCTTCTCGATGGAGA
GAATCTGAAGAATGAGGAGGAGACCCCCTCGTGCATGGCAAGCCTCTGGACAGCTCCTCTCGTCATGAGAACTAC
AAACCTTGACAACCGATGCAAGCTGTTTGACTCCCCTTCCCTGTGTAGCTCCAGCACTCGGTCAGTGTTGAAGAG
ACCAGAACGATCTCAAGAGGAGTCTCCACCTGGAAGTACAAAGAGGAGGAAGAGCATGTCTGGGGCCAGCCCCAA
AGAGTCAACTAATCCAGAGAAGGCCCATGAGACTCTTCATCAGTCTTTATCCCTGGCATCTTCCCCCAAAGGAAC
CATTGAGAACATTTTGGACAATGACCCAAGGGACCTTATAGGAGACTTCTCCAAGGGTTATCTCTTTCATACAGT
TGCTGGGAAACATCAGGATTTAAAATACATCTCTCCAGAAATTATGGCATCTGTTTTGAATGGCAAGTTTGCCAA
CCTCATTAAAGAGTTTGTTATCATCGACTGTCGATACCCATATGAATACGAGGGAGGCCACATCAAGGGTGCAGT
GAACTTGCACATGGAAGAAGAGGTTGAAGACTTCTTATTGAAGAAGCCCATTGTACCTACTGATGGCAAGCGTGT
CATTGTTGTGTTTCACTGCGAGTTTTCTTCTGAGAGAGGTCCCCGCATGTGCCGGTATGTGAGAGAGAGAGATCG
CCTGGGTAATGAATACCCCAAACTCCACTACCCTGAGCTGTATGTCCTGAAGGGGGGATACAAGGAGTTCTTTAT
GAAATGCCAGTCTTACTGTGAGCCCCCTAGCTACCGGCCCATGCACCACGAGGACTTTAAAGAAGACCTGAAGAA
GTTCCGCACCAAGAGCCGGACCTGGGCAGGGGAGAAGAGCAAGAGGGAGATGTACAGTCGTCTGAAGAAGCTC**TG**
AGGGCGGCAGGACCAGCCAGCAGCAGCCCAAGCTTCCCTCCATCCCCCTTTACCCTCTTTGCTGCAGAGAAACTT
AAGCAAAGGGGACAGCTGTGTGACATTTGGAGAGGGGGCCTGGGACTTCCATGCCTTAAACCTACCTCCCACACT
CCCAAGGTTGGAGCCCAGGGCATCTTGCTGGCTACGCCTCTTCTGTCCCTGTTAGACGTCCTCCGTCCATATCAG
AACTGTGCCCACAATGCAGTTCTGAGCACCGTGTCAAGCTGCTCTGAGCCACAGTGGGATGAACCAGCCGGGGCCT
TATCGGGCTCCAGCCATCTCATGAGGGGAGAGGAGACGGAGGGGAGTAGAGAAGTTACACAGAAATGCTGCTGGC
CAAATAGCAAAGACAACCTGGGAAGGAAAGGTCTTTGTGGGATAATCCATATGTTTAATTTATTCAACTTCATCA
ATCACTTTATTTTATTTTTTTTCTAACTCCTGGAGACTTATTTTACTGCTTCATTAGGTTGAAATACTGCCATT
CTAGGTAGGGTTTTATTATCCCAGGGACTACCTCGGCNNNNNNNNNNNNNNNNNNNNNNNGAAGTGGGTAAGAAAAT
GCAAACCTGTTATAAGTTATCGGACAGAAAGCTAGGTGCTCTGTCACCCCCAGGAGGCGCTGTGGTACTGGGGCT
GCTGCTATTTAAGCCAAGAACTGAGGTCCTGGTGAGAGCGTTGGACCCAGGCTTGGCTGCCTGACATAAGCTAAA
TCTCCCAGACCCACCACTGGCTACCGATATCTATTTGGTGGGAGGTGTGGCCCTGTTCTTCCTCACCCCAGTTCC
ATGACATTGGCTGGTATAGGAGCCACAGTCAGGAAAGCACTTGAGGCAGCATCTGTTGGGCCACCCCCGGCTCAG
TGCTGGAATGTTGCAGTGTAGGTTTCCCAGGCAAGGGGGTGGGGGTAGGTGGGCTCCACAGGATGGGGGAGGAG
CATGTCCACTGAGTATCTTCCTTATGTTGCTGTGATATTGATAGCTTTTATTTTCTAATTTTTAAAAAATGGTCA
TATTATGAGTCAAAGAGTATCAAATCAGTGTTGGATGGACCACCCAAGGGTGAGGAGAGGGGCTGGAAGCCCTGG
GCATTAGGAGAAGGGAGTGGGTGCTGGCATGGACATGACTGGATAGAATTTTCTCAGGAGGGAGCTTGGTGGATT
TTGAAGGTAAAACTTTCTGGGTTTATCATGTTTTAATTTTAGAGACAGGGAGTGATGAATCATCACCGGTTGTCC
CCTTATCTAACTCCATAAAAGTGGGAATTTCAAAAGAACACCTCATCCAAGGAGCTGGGGCAGACTTCATTGATT
CTAGAGAGACCTGTTTCAGTGCCTACTCATCCCTGCCCTCTGGTGCCAGCCTCCTTACCATCACGGCTTCACTGA
GGTGTAGGTGGGTTTTTCTTAAACAGGAGACAGTCTCTCCCCTCTTACCTCAACTTCTTGGGGTGGGAATCAGTG
ATACTGGAGATGGCTAGTTGCTGTGTTACGGGTTTGAGTTACATTTGGCTATAAAACAATCTTGTTGGGAAAAAT

FIGURE 396B

GTGGGGGAGAGGACTTCTTCCTACACGCGCATTGAGACAGATTCCAACTGGTTAATGATATTGTTTGTAAGAAAG
AGATTCTGTTGGTTGACTGCCTAAAGAGAAAGGTGGGATGGCCTTCAGATTATACCAGCTTAGCTAGCATTACTA
ACCAACTGTTGGAAGCTCTGAAAATAAAAGATCTTGAACCCAT

FIGURE 397

MELGPSPAPRRLLFACSPPPASQPVVKALFGASAAGGLSPVTNLTVTMDQLQGLGSDYEQPLEVKNNSNLQRMGS
SESTDSGFCLDSPGPLDSKENLENPMRRIHSLPQKLLGCSPALKRSHSDSLDHDIFQLIDPDENKENEAFEFKKP
VRPVSRGCLHSHGLQEGKDLFTQRQNSAQLGMLSSNERDSSEPGNFIPLFTPQSPVTATLSDEDDGFVDLLDGEN
LKNEEETPSCMASLWTAPLVMRTTNLDNRCKLFDSPSLCSSSTRSVLKRPERSQEESPPGSTKRRKSMSGASPKE
STNPEKAHETLHQSLSLASSPKGTIENILDNDPRDLIGDFSKGYLFHTVAGKHQDLKYISPEIMASVLNGKFANL
IKEFVIIDCRYPYEYEGGHIKGAVNLHMEEEVEDFLLKKPIVPTDGKRVIVVFHCEFSSERGPRMCRYVRERDRL
GNEYPKLHYPELYVLKGGYKEFFMKCQSYCEPPSYRPMHHEDFKEDLKKFRTKSRTWAGEKSKREMYSRLKKL

FIGURE 398A

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CGGGCAGCGTGGACCCCGGATGAGTTGCTTTTAGGCTTGCTGGCCCGCGGGGCTGTCCAGGCACGCGAGGCCCCT
CAGGTACGCCCTCTCTTCCCTGCAGGATCCGGCCCTCAAAGACGAGGGTCACGCACGCGTTACAACCCCGAAACA
GTAGCACAAGATTTAATTTTTAAAAGAGCGTGTTTCTTCGGGGCTTGCCGTTCGTTCGTTTCCAGCCTCAGGAAT
TTATGGTCGCCTTTTTGAATGAGCAACAAAATGCTTCAACAAGTTCCAGAAAACATAAATTTTCCTGCTGAAGAA
GAGAAAATCTTGGAGTTTTGGACTGAATTTAATTGTTTTCAGGAATGCTTAAAGCAATCAAAACATAAACCAAAA
TTTACCTTCTATGATGGTCCTCCTTTTGCAACTGGACTGCCTCACTATGGACATATACTTGCGGGTACAATTAAA
GATATAGTTACAAGATATGCTCACCAGAGTGGGTTTCATGTTGACAGAAGATTTGGATGGGATTGCCATGGCTTA
CCTGTGGAATATGAAATTGATAAGACACTGGGAATCAGAGGACCAGAGGATGTGGCCAAAATGGGGATTACAGAG
TATAACAATCAGTGCCGAGCAATTGTGATGAGATATTCTGCTGAGTGGAAGTCTACTGTTAGCAGACTTGGCCGA
TGGATTGACTTTGACAATGACTATAAAACTCTGTATCCACAATTCATGGAATCAGTCTGGTGGGTCTTCAAACAA
CTCTATGATAAAGGCCTTGTTTATAGAGGTGTGAAAGTCATGCCCTTCTCTACGGCATGTAACACTCCACTTTCC
AACTTCGAGTCACACCAGAATTATAAGGATGTTCAAGATCCTTCAGTATTTGTAACTTTCCCTTTGGAAGAAGAT
GAAACTGTATCTTTAGTTGCTTGGACAACCACTCCCTGGACTCTACCTAGTAACCTTGCTGTGTGTGTTAATCCA
GAAATGCAATATGTGAAAATTAAAGATGTTGCCAGAGGACGATTACTCATTTTAATGGAAGCCAGATTGTCAGCC
CTCTATAAATTGGAGAGTGACTATGAGATCCTTGAAAGATTTCCTGGTGCCTATCTTAAAGGCAAGAAGTACAGG
CCCCTGTTTGACTATTTCCTGAAGTGTAAAGAGAATGGCGCTTTCACTGTGCTTGTTGACAACTATGTGAAGGAA
GAAGAAGGCACAGGGGTTGTCCACCAAGCTCCTTACTTCGGTGCTGAGGACTATCGGGTCTGTATGGACTTTAAC
ATTATTCGGAAAGACTCACTCCCTGTTTGCCCTGTGGATGCTTCAGGCTGCTTCACAACGGAGGTGACAGATTTC
GCAGGACAGTATGTGAAGGATGCTGACAAAAGTATCATCAGGACTTTGAAGGAACAAGGCCGACTTCTGGTTGCC
ACCACCTTCACTCACAGCTACCCTTTTTGCTGGAGATCAGACACTCCTCTAATTTACAAAGCAGTGCCCAGCTGG
TTTGTGCGAGTGGAGAACATGGTGGACCAGCTCCTAAGGAACAATGACCTGTGCTACTGGGTCCCAGAGTTGGTA
CGAGAAAAACGATTTGGAAATTGGCTGAAAGATGCACGTGACTGGACAATTTCCAGAAACAGATACTGGGGCACC
CCCATCCCACTGTGGGTCAGCGATGACTTTGAGGAGGTGGTATGCATTGGGTCAGTGGCGGAACTTGAAGAACTG
TCAGGAGCAAAGATCTCAGATCTCCACAGAGAGAGTGTTGACCACCTGACCATTCCTTCACGCTGTGGGAAGGGA
TCCTTGCACCGCATCTCTGAAGTGTTTGACTGTTGGTTTGAGAGTGGCAGCATGCCCTATGCTCAGGTTCATTAC
CCGTTTGAAAACAAGAGGGAGTTTGAGGATGCTTTTCCTGCAGATTTCATTGCCGAGGGCATCGACCAAACCAGA
GGATGGTTTTATACCCTGCTGGTGCTGGCCACGGCCCTCTTTGGACAACCGCCTTTCAAGAACGTAATTGTGAAT
GGGCTTGTCCTGGCAAGTGATGGCCAAAAAATGAGCAAACGGAAAAAGAATTATCCAGATCCAGTTTCCATCATC
CAGAAGTATGGTGCTGATGCCCTCAGATTATATCTGATTAACTCCCCTGTGGTGAGAGCAGAAAACCTCCGCTTT
AAAGAAGAGGGTGTGCGGGACGTCCTTAAGGATGTACTGCTCCCATGGTACAATGCCTATCGCTTCTTAATCCAG
AACGTTCTGAGGCTCCAGAAGGAGGAAGAAATAGAATTTCTCTACAATGAGAACACGGTTAGAGAAAGCCCCAAC
ATTACAGACCGGTGGATCCTGTCCTTCATGCAGTCTCTCATTGGCTTCTTTGAGACTGAAATGGCAGCTTATAGG
CTTTATACTGTGGTGCCTCGCCTGGTCAAGTTTGTAGATATTCTGACCAATTGGTATGTTAGAATGAACCGCAGA
AGATTAAAGGGTGAAAATGGGATGGAGGATTGTGTCATGGCCCTAGAAACCTTGTTTAGTGTTCTGCTTTCTCTT
TGCAGACTTATAGCTCCCTACACACCTTTTCTCACTGAATTGATGTACCAGAATCTAAAGGTGCTGATTGACCCT
GTTTCTGTTCAGGACAAGGACACACTCAGCATTCACTACCTCATGCTGCCCCGTGTTCGAGAAGAATTGATTGAC
AAGAAAACAGAGAGTGCAGTATCTCAGATGCAGTCTGTGATTGAACTTGGAAGAGTGATCAGAGACCGAAAAACT
ATTCCCATAAAGTATCCTTTGAAAGAAATTGTGGTTATCCATCAAGATCCAGAAGCTCTTAAAGATATCAAGTCT
TTGGAGAAGTATATCATTGAGGAACTCAATGTTCGAAAAGTTACACTGTCTACAGATAAAAACAAGTATGGCATT
CGGCTAAGGGCAGAACCAGATCACATGGTCCTGGGGAAGCGTCTGAAGGGAGCCTTTAAGGCAGTGATGACGTCC
ATCAAGCAGTTGAGCAGTGAGGAGCTGGAGCAGTTCCAGAAGACTGGGACCATTGTTGTGGAAGGCCATGAATTG
CACGATGAAGACATCCGCCTCATGTACACCTTTGATCAGGCCACAGGTGGGACTGCGCAATTTGAAGCACACTCA
GATGCTCAGGCTTTGGTCCTCTTAGATGTCACTCCTGACCAGTCAATGGTAGATGAAGGAATGGCTCGGGAAGTC
ATCAATCGCATACAGAAACTTCGCAAAAAGTGCAATCTGGTTCCAACTGATGAAATCACAGTGTACTATAAAGCA
AAGTCTGAAGGAACATATCTGAATAGTGTTATTGAAAGCCACACAGAGTTCATATTTACCACCATAAAGGCTCCC
TTGAAACCATATCCAGTTTCTCCATCGGATAAAGTCCTTATTCAAGAAAAAACACAGTTGAAGGGATCTGAACTG
GAAATTACACTCACCAGAGGATCTTCCCTTCCTGGTCCTGCTTGTGCATATGTCAATCTTAACATTTGTGCAAAT
GGCAGTGAACAAGGTGGAGTATTGCTCCTGGAAAATCCAAAAGGTGACAATAGGTTGGACCTTTTAAAGCTGAAG
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FIGURE 398B

AGTGTTGTCACTAGCATTTTTGGTGTGAAAAATACAGAGCTGGCTGTCTTCCATGATGAAACAGAAATACAAAAC
CAAACTGACTTACTGAGTCTTAGTGGAAAAACACTTTGTGTGACTGCAGGATCGGCTCCCTCTCTGATCAACAGT
TCTAGTACTCTTCTTTGTCAGTATATCAACCTACAGCTCCTGAATGCAAAGCCACAAGAGTGTTTAATGGGGACA
GTGGGCACTCTCCTGCTTGAAAACCCACTTGGGCAGAATGGACTCACCCACCAAGGTCTTCTGTATGAAGCAGCC
AAGGTGTTTGGCCTTCGGAGCAGGAAGCTAAAGCTGTTTCTGAATGAGACCCAAACGCAGGAAATTACAGAAGAC
ATCCCCGTGAAGACTTTGAATATGAAGACTGTGTATGTTTCTGTGTTACCAACAACAGCAGACTTC**TAG**CATGTA
CTTATCAATGTTGTTCGGTCAGCCCTTCCCTAATTACACCTATCCCCTACACATACATGCACATAGACACACACA
TGAACACACTGAAGATATTTCCTTCAGGTGTGTGTAAAATATGCTGCTTGGATTGAAATTCAAATGGGATTGATT
AGTCAAGTAACTTGAGACCTCACAGTAATCTTCACACTTAACCTTAGACACCTATGCAGTCATGTTGGGAGCAGG
TTACAATGTTACTTCAGCCCACAGTTTATTTCTATTCTTGAGTTCTTAAGTACAGAAGATAGAAGTGATTTAAAT
GGCATAGTATATATATCATTTTCTGGCCTTTTAAAATTTATTTGAGACCTCTTGATGAAATGGACATATTATATA
TTTCTGCCACCTGGATTTTCCTGGATAATTTGATGGAATATTTTAAGTTTCAGTAAATCAGAACAATAAACAAAC
TCAGATAT

FIGURE 399

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MLQQVPENINFPAEEEKILEFWTEFNCFQECLKQSKHKPKFTFYDGPPFATGLPHYGHILAGTIKDIVTRYAHQS
GFHVDRRFGWDCHGLPVEYEIDKTLGIRGPEDVAKMGITEYNNQCRAIVMRYSAEWKSTVSRLGRWIDFDNDYKT
LYPQFMESVWWVFKQLYDKGLVYRGVKVMPFSTACNTPLSNFESHQNYKDVQDPSVFVTFPLEEDETVSLVAWTT
TPWTLPSNLAVCVNPEMQYVKIKDVARGRLLILMEARLSALYKLESDYEILERFPGAYLKGKKYRPLFDYFLKCK
ENGAFTVLVDNYVKEEEGTGVVHQAPYFGAEDYRVCMDFNIIRKDSLPVCPVDASGCFTTEVTDFAGQYVKDADK
SIIRTLKEQGRLLVATTFTHSYPFCWRSDTPLIYKAVPSWFVRVENMVDQLLRNNDLCYWVPELVREKRFGNWLK
DARDWTISRNRYWGTPIPLWVSDDFEEVVCIGSVAELEELSGAKISDLHRESVDHLTIPSRCGKGSLHRISEVFD
CWFESGSMPYAQVHYPFENKREFEDAFPADFIAEGIDQTRGWFYTLLVLATALFGQPPFKNVIVNGLVLASDGQK
MSKRKKNYPDPVSIIQKYGADALRLYLINSPVVRAENLRFKEEGVRDVLKDVLLPWYNAYRFLIQNVLRLQKEEE
IEFLYNENTVRESPNITDRWILSFMQSLIGFFETEMAAYRLYTVVPRLVKFVDILTNWYVRMNRRRLKGENGMED
CVMALETLFSVLLSLCRLIAPYTPFLTELMYQNLKVLIDPVSVQDKDTLSIHYLMLPRVREELIDKKTESAVSQM
QSVIELGRVIRDRKTIPIKYPLKEIVVIHQDPEALKDIKSLEKYIIEELNVRKVTLSTDKNKYGIRLRAEPDHMV
LGKRLKGAFKAVMTSIKQLSSEELEQFQKTGTIVVEGHELHDEDIRLMYTFDQATGGTAQFEAHSDAQALVLLDV
TPDQSMVDEGMAREVINRIQKLRKKCNLVPTDEITVYYKAKSEGTYLNSVIESHTEFIFTTIKAPLKPYPVSPSD
KVLIQEKTQLKGSELEITLTRGSSLPGPACAYVNLNICANGSEQGGVLLLENPKGDNRLDLLKLKSVVTSIFGVK
NTELAVFHDETEIQNQTDLLSLSGKTLCVTAGSAPSLINSSSTLLCQYINLQLLNAKPQECLMGTVGTLLLENPL
GQNGLTHQGLLYEAAKVFGLRSRKLKLFLNETQTQEITEDIPVKTLNMKTVYVSVLPTTADF
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FIGURE 400

GAAAAGCGCGCGCGGGGATTCCAGGAGTCGTGGTTTCTTGCCTTGATGTACTGGAGCAATCAGATCACACGGCGG
CTTGGAGAGTGAGTGCAAGGTTTT**ATG**AGTGGAATTAGCCCTCAGCAGATGGGGGAGCCAGAAGGCAGTTGGAGT
GGGAAGAACCCAGGGACCATGGGCGCCTCCAGGCTCTATACCCTGGTGCTGGTCCTGCAGCCTCAGCGAGTTCTC
CTGGGCATGAAAAAGCGAGGCTTCGGGGCCGGCCGGTGGAATGGCTTTGGGGGCAAAGTGCAAGAAGGAGAGACC
ATCGAGGATGGGGCTAGGAGGGAGCTGCAGGAGGAGAGCGGTCTGACAGTGGACGCCCTGCACAAGGTGGGCCAG
ATCGTGTTTGAGTTCGTGGGCGAGCCTGAGCTCATGGACGTGCATGTCTTCTGCACAGACAGCATCCAGGGGACC
CCCGTGGAGAGCGACGAAATGCGCCCATGCTGGTTCCAGCTGGATCAGATCCCCTTCAAGGACATGTGGCCCGAC
GACAGCTACTGGTTTCCACTCCTGCTTCAGAAGAAGAAATTCCACGGGTACTTCAAGTTCCAGGGTCAGGACACC
ATCCTGGACTACACACTCCGCGAGGTGGACACGGTC**TAG**CGGGAGCCCAGGGCAGCCCCTGGGCAGGAGACGTGG
CTGCTGAACAGCTGCAAACCATCTTCACCTGGGGGCATTGAGTGGCGCAGAGCCGGGTTTCATCTGGAATTAACT
GGATGGAAGGGAAAATAAAGCTATCTAGCGGTGAAAAA

FIGURE 401

MSGISPQQMGEPEGSWSGKNPGTMGASRLYTLVLVLQPQRVLLGMKKRGFGAGRWNGFGGKVQEGETIEDGARRE
LQEESGLTVDALHKVGQIVFEFVGEPELMDVHVFCTDSIQGTPVESDEMRPCWFQLDQIPFKDMWPDDSYWFPLL
LQKKKFHGYFKFQGQDTILDYTLREVDTV

FIGURE 402

GGCACGAGGCAGGCCACCCGCCGCTAAGCTGAGAAGGGAGAGCGAGCTTAGGACCGCCTGCCCGGGGCAACCCCG
AACCAAGCTTTAGCCGCCGAGGCCGCGTGTCCCAAAGGCCAGTCATCCCTCCTCTGTGTTGCC**ATG**GGAATTCAA
GGCCTGGCCAAACTAATTGCTGATGTGGCCCCCAGTGCCATCCGGGAGAATGACATCAAGAGCTACTTTGGCCGT
AAGGTGGCCATTGATGCCTCTATGAGCATTTATCAGTTCCTGATTGCTGTTCGCCAGGGTGGGGATGTGCTGCAG
AATGAGGAGGGTGAGACCACCAGCCACCTGATGGGCATGTTCTACCGCACCATTCGCATGATGGAGAACGGCATC
AAGCCCGTGTATGTCTTTGATGGCAAGCCGCCACAGCTCAAGTCAGGCGAGCTGGCCAAACGCAGTGAGCGGCGG
GCTGAGGCAGAGAAGCAGCTGCAGCAGGCTCAGGCTGCTGGGGCCGAGCAGGAGGTGGAAAAATTCACTAAGCGG
CTGGTGAAGGTCACTAAGCAGCACAATGATGAGTGCAAACATCTGCTGAGCCTCATGGGCATCCCTTATCTTGAT
GCACCCAGTGAGGCAGAGGCCAGCTGTGCTGCCCTGGTGAAGGCTGGCAAAGTCTATGCTGCGGCTACCGAGGAC
ATGGACTGCCTCACCTTCGGCAGCCCTGTGCTAATGCGACACCTGACTGCCAGTGAAGCCAAAAAGCTGCCAATC
CAGGAATTCCACCTGAGCCGGATTCTGCAGGAGCTGGGCCTGAACCAGGAACAGTTTGTGGATCTGTGCATCCTG
CTAGGCAGTGACTACTGTGAGAGTATCCGGGGTATTGGGCCCAAGCGGGCTGTGGACCTCATCCAGAAGCACAAG
AGCATCGAGGAGATCGTGCGGCGACTTGACCCCAACAAGTACCCTGTGCCAGAAAATTGGCTCCACAAGGAGGCT
CACCAGCTCTTCTTGGAACCTGAGGTGCTGGACCCAGAGTCTGTGGAGCTGAAGTGGAGCGAGCCAAATGAAGAA
GAGCTGATCAAGTTCATGTGTGGTGAAAAGCAGTTCTCTGAGGAGCGAATCCGCAGTGGGGTCAAGAGGCTGAGT
AAGAGCCGCCAAGGCAGCACCCAGGGCCGCCTGGATGATTTCTTCAAGGTGACCGGCTCACTCTCTTCAGCTAAG
CGCAAGGAGCCAGAACCCAAGGGATCCACTAAGAAGAAGGCAAAGACTGGGGCAGCAGGGAAGTTTAAAAGGGGA
AAA**TAA**ATGTGTTTCCCCATTATACCTCCTTCACCCCAGAATATTTGCCGTCTTGTACCCTTAAGAGCTACAGCT
AGAGAAACCTTCACGGGGTGGAGAGAGGATTCTAAGGCTTTTCTAGCGTGACCCTTTTCAGTAGTGCTAGTCCCT
TTTTTACTTGATCTTAATGGCAAGAAGGCCACAGAGGTACTTTTCCTTTTTTAGCTCAGGAAAATATGTCAGGCT
CAAACCACTTCTCAGGCAGTTTAATGGACACTAAGTCCATTGTTACATGAAAGTGATAGATAGCAACAAGTTTTG
GAGAAGAGAGAGGGAGATAAAAGGGGGAGACAAAAGATGTACAGAAATGATTTCCTGGCTGGCCAACTGGTGGCC
AGTGGGAGGTGATGGTGGACCTAGACTGTGCTTTTCTGTCTTGTTCAGCCTTGACCCACCTTGAGAGAGAGCCAC
CAGGAAGGCGCATCTTAGCAGATGGGAGGAACTGCTGAGAGAAGATGGGCAGAAAGCTGGAGCCCCTGGAGTTGG
CTGTGTCTGTGTTTGTGACTGATTACTGGCTGTGTCTTGGGTGGGCAGAAACTCGAACTTGCTATGTAATTTGTG
TCTAGTTATTCAGAGGAGTAAGATGGTGATGTTCACCTGGCAATCAGCTGAGTTGAGACTTTGGAATAAGACACT
GGTTTTCATGCGCTGTTTTTGTTTTAAAGTTATGAAGAAAAAGTCAATAAAATTCTAAAAGTAAAAAAAAAAAA
AAAAAA

FIGURE 403

MGIQGLAKLIADVAPSAIRENDIKSYFGRKVAIDASMSIYQFLIAVRQGGDVLQNEEGETTSHLMGMFYRTIRMM
ENGIKPVYVFDGKPPQLKSGELAKRSERRAEAEKQLQQAQAAGAEQEVEKFTKRLVKVTKQHNDECKHLLSLMGI
PYLDAPSEAEASCAALVKAGKVYAAATEDMDCLTFGSPVLMRHLTASEAKKLPIQEFHLSRILQELGLNQEQFVD
LCILLGSDYCESIRGIGPKRAVDLIQKHKSIEEIVRRLDPNKYPVPENWLHKEAHQLFLEPEVLDPESVELKWSE
PNEEELIKFMCGEKQFSEERIRSGVKRLSKSRQGSTQGRLDDFFKVTGSLSSAKRKEPEPKGSTKKKAKTGAAGK
FKRGK

FIGURE 404

AGTCCTGCGATTTCGGGTGTAGAGGGAGCAGGGGCCTGCGGGGACCTGGTGTGGGTGGAGTGGGGACAAGCGGTG
GAGAAGGGTACGCCAGGGTCGCTGAGAGACTCTGTTCTCCCTGGAGGGACTGGTTGCCATGAGAGCAGCCGTCTG
AGGGGACGCAGCCTGCACTACGCGCCCCAAGAGGCTGTGCGTGGCGAGCAGGTCACGTGACGGGAGCGCGGGCTT
TGGAAGGCGGCTGAACGTCAGGCCACCCGCCGCTAAGCTGAGAAGGGAGAGCGAGCTTAGGACCGCCTGCCCGGG
GCAACCCCGAACCAAGCTTTAGCCGCCGAGGCCGCGTGTCCCAAAGGCCAGTCATCCCTCCTCTGTGTTGCC**ATG**

GGAATTCAAGGCCTGGCCAAACTAATTGCTGATGTGGCCCCCAGTGCCATCCGGGAGAATGACATCAAGAGCTAC
TTTGGCCGTAAGGTGGCCATTGATGCCTCTATGAGCATTTATCAGTTCCTGATTGCTGTTCGCCAGGGTGGGGAT
GTGCTGCAGAATGAGGAGGGTGAGACCACCAGCCACCTGATGGGCATGTTCTACCGCACCATTCGCATGATGGAG
AACGGCATCAAGCCCGTGTATGTCTTTGATGGCAAGCCGCCACAGCTCAAGTCAGGCGAGCTGGCCAAACGCAGT
GAGCGGCGGGCTGAGGCAGAGAAGCAGCTGCAGCAGGCTCAGGCTGCTGGGGCCGAGCAGGAGGTGGAAAAATTC
ACTAAGCGGCTGGTGAAGGTCACTAAGCAGCACAATGATGAGTGCAAACATCTGCTGAGCCTCATGGGCATCCCT
TATCTTGATGCACCCAGTGAGGCAGAGGCCAGCTGTGCTGCCCTGGTGAAGGCTGGCAAAGTCTATGCTGCGGCT
ACCGAGGACATGGACTGCCTCACCTTCGGCAGCCCTGTGCTAATGCGACACCTGACTGCCAGTGAAGCCAAAAAG
CTGCCAATCCAGGAATTCCACCTGAGCCGGATTCTGCAGGAGCTGGGCCTGAACCAGGAACAGTTTGTGGATCTG
TGCATCCTGCTAGGCAGTGACTACTGTGAGAGTATCCGGGGTATTGGGCCCAAGCGGGCTGTGGACCTCATCCAG
AAGCACAAGAGCATCGAGGAGATCGTGCGGCGACTTGACCCCAACAAGTACCCTGTGCCAGAAAATTGGCTCCAC
AAGGAGGCTCACCAGCTCTTCTTGGAACCTGAGGTGCTGGACCCAGAGTCTGTGGAGCTGAAGTGGAGCGAGCCA
AATGAAGAAGAGCTGATCAAGTTCATGTGTGGTGAAAAGCAGTTCTCTGAGGAGCGAATCCGCAGTGGGGTCAAG
AGGCTGAGTAAGAGCCGCCAAGGCAGCACCCAGGGCCGCCTGGATGATTTCTTCAAGGTGACCGGCTCACTCTCT
TCAGCTAAGCGCAAGGAGCCAGAACCCAAGGGATCCACTAAGAAGAAGGCAAAGACTGGGGCAGCAGGGAAGTTT
AAAAGGGGAAAA**TAA**ATGTGTTTCCCCATTATACCTCCTTCACCCCAGAATATTTGCCGTCTTGTACCCTTAAGA
GCTACAGCTAGAGAAACCTTCACGGGGTGGAGAGAGGATTCTAAGGCTTTTCTAGCGTGACCCTTTTCAGTAGTG
CTAGTCCCTTTTTTACTTGATCTTAATGGCAAGAAGGCCACAGAGGTACTTTTCCTTTTTTAGCTCAGGAAAATA
TGTCAGGCTCAAACCACTTCTCAGGCAGTTTAATGGACACTAAGTCCATTGTTACATGAAAGTGATAGATAGCAA
CAAGTTTTGGAGAAGAGAGAGGGAGATAAAAGGGGGAGACAAAAGATGTACAGAAATGATTTCCTGGCTGGCCAA
CTGGTGGCCAGTGGGAGGTGATGGTGGACCTAGACTGTGCTTTTCTGTCTTGTTCAGCCTTGACCCACCTTGAGA
GAGAGCCACCAGGAAGGCGCATCTTAGCAGATGGGAGGAACTGCTGAGAGAAGATGGGCAGAAAGCTGGAGCCCC
TGGAGTTGGCTGTGTCTGTGTTTGTGACTGATTACTGGCTGTGTCTTGGGTGGGCAGAAACTCGAACTTGCTATG
TAATTTGTGTCTAGTTATTCAGAGGAGTAAGATGGTGATGTTCACCTGGCAATCAGCTGAGTTGAGACTTTGGAA
TAAGACACTGGTTTTCATGCGCTGTTTTTGTTTTAAAGTTATGAAGAAAAAGTCAATAAAATTCTAAAGTAAA
AAAAAAAAAAAAAA

FIGURE 405

MGIQGLAKLIADVAPSAIRENDIKSYFGRKVAIDASMSIYQFLIAVRQGGDVLQNEEGETTSHLMGMFYRTIRMM
ENGIKPVYVFDGKPPQLKSGELAKRSERRAEAEKQLQQAQAAGAEQEVEKFTKRLVKVTKQHNDECKHLLSLMGI
PYLDAPSEAEASCAALVKAGKVYAAATEDMDCLTFGSPVLMRHLTASEAKKLPIQEFHLSRILQELGLNQEQFVD
LCILLGSDYCESIRGIGPKRAVDLIQKHKSIEEIVRRLDPNKYPVPENWLHKEAHQLFLEPEVLDPESVELKWSE
PNEEELIKFMCGEKQFSEERIRSGVKRLSKSRQGSTQGRLDDFFKVTGSLSSAKRKEPEPKGSTKKKAKTGAAGK
FKRGK

FIGURE 406

GCACGCCCAGCGAGTTCCAGAGGCGCCAGTGGAAGCTGCGGCGGCGGTGTCTCGCGTTCGGCGGGATTTCTCTTC
GCTCCGGCTCGGCCTAGGTCTACGTCCCCAGCTCCAGCCGCCGGCTCGGACTCGGTCTCTGACCCCCAACTCGGT
CCCCTAGTCCGGCCCCGGCTCCGGGCCCCCCAACCCTCGCTCCGGCCCGGCCCGGCCCCCACCCCAGCCCTGCCG
CCCGGCCCCAGGCCCGGCCGCGGCCGCTCCCGCCTGGAGCCGCCGCGCGCCCCCAGCCCCCCTGCACCCCCTCGG
CCCCTCGCCTTCCTCTTCCCGGCGCGGCCCCCCGGCTTCCGCGCGCCGCCCGCCACCAATCCTCTTGCTACC**ATG**

TCCGTGGAGCTCGAGGAGGCCCTGCCAGTGACGACCGCCGAGGGAATGGCCAAGAAGGTGACCAAGGCTGGCGGC
TCGGCGGCGTTGTCCCCATCTAAGAAGAGGAAGAATAGCAAGAAGAAGAACCAGCCGGGCAAGTACAGCCAGCTG
GTGGTGGAGACCATCCGTAGGCTGGGCGAGCGCAACGGCTCGTCGCTGGCCAAGATCTACACCGAGGCCAAGAAG
GTTCCGTGGTTCGACCAGCAGAATGGGCGCACCTACCTCAAGTACTCGATCAAGGCGCTGGTGCAGAACGACACG
CTTCTGCAGGTGAAGGGCACCGGCGCCAACGGTTCCTTCAAGCTCAACCGCAAGAAGCTGGAGGGCGGCGGGGAG
CGGCGCGGAGCCCCGGCGGCCGCCACCGCCCCGGCCCCCACCGCGCACAAAGCGAAGAAGGCAGCCCCGGGCGCG
GCCGGCTCCCGGCGCGCGGACAAGAAGCCCGCCAGGGGCCAGAAGCCGGAGCAGCGCTCGCACAAGAAGGGCGCT
GGCGCCAAGAAGGACAAAGGCGGCAAGGCCAAGAAGACGGCGGCCGCCGGGGGCAAGAAGGTGAAGAAGGCGGCC
AAGCCCAGCGTCCCCAAAGTGCCCAAGGGCCGCAAG**TGA**GCGTGTCGGCCGGTCAGAGCGGCCGGCGTGGGCTTT
TCGGTGTTTTTGTTTTTCTACCCCAAGTGACGTAGATTTTGTACGGCTCACGCCGGCCGGGGCCGCGAGGCCTGG
TCTGAGCCTCAGGGAGGGGCCCCGGGTCCTCTCAGTCTTTCCCCTCCCCCAACGATGTAGCGTTTTTCGTTGTTT
GCTTTAGGTTTTTGAAACAGCCCCGGCGACGCCTCTATTGGCTCTCGGCCTTGGCAACGGCCGTCGTCATGGTTA
CTGGCCCCTAGGCGCCGATGGCCGAGGCCGCGCCTGCCCACCGGGCGGGGTCGCTGGTTGGCCGGGCCCAGGCGC
GCGGGGACGCGGAGGCCGCGCATCCTTTCCCAGCTCCCCACCCTCCTTGCCTTTGGGTGCGCGACAAACAATCGC
TCCGGGCTCAGGGCTGCGCGGCTCTTCCCTTCATTCCATGGGCCTTTTTTTGGGCACAATAAAGCGTTTAAACCT
TTC

FIGURE 407

MSVELEEALPVTTAEGMAKKVTKAGGSAALSPSKKRKNSKKKNQPGKYSQLVVETIRRLGERNGSSLAKIYTEAK
KVPWFDQQNGRTYLKYSIKALVQNDTLLQVKGTGANGSFKLNRKKLEGGGERRGAPAAATAPAPTAHKAKKAAPG
AAGSRRADKKPARGQKPEQRSHKKGAGAKKDKGGKAKKTAAAGGKKVKKAAKPSVPKVPKGRK

FIGURE 408

ACGCGTCCGCTTCGGAATGAGAGACTCAACCATAATAGAAAGAATGGAGAACTATTAACCACCATTCTTCAGTGG
GCTGTGATTTTCAGAGGGGAATACTAAGAAATGGTTTTCCATACTGGAACCCAAAGGTAAAGACACTCAAGGACA
GACATTTTTGGCAGAGCATAG**ATG**AAAATGGCAAGTTCCCTGGCTTTCCTTCTGCTCAACTTTCATGTCTCCCTC
TTCTTGGTCCAGCTGCTCACTCCTTGCTCAGCTCAGTTTTCTGTGCTTGGACCCTCTGGGCCCATCCTGGCCATG
GTGGGTGAAGACGCTGATCTGCCCTGTCACCTGTTCCCGACCATGAGTGCAGAGACCATGGAGCTGAGGTGGGTG
AGTTCCAGCCTAAGGCAGGTGGTGAACGTGTATGCAGATGGAAAGGAAGTGGAAGACAGGCAGAGTGCACCATAT
CGAGGGAGAACTTCGATTCTGCGGGATGGCATCACTGCAGGGAAGGCTGCTCTCCGAATACACAACGTCACAGCC
TCTGACAGTGGAAAGTACTTGTGTTATTTCCAAGATGGTGACTTCTACGAAAAAGCCCTGGTGGAGCTGAAGGTT
GCAGCATTGGGTTCTGATCTTCACATTGAAGTGAAGGGTTATGAGGATGGAGGGATCCATCTGGAGTGCAGGTCC
ACTGGCTGGTACCCCCAACCCCAAATAAAGTGGAGCGACACCAAGGGAGAGAACATCCCGGCTGTGGAAGCACCT
GTGGTTGCAGATGGAGTGGGCCTGTATGCAGTAGCAGCATCTGTGATCATGAGAGGCAGCTCTGGTGGGGGTGTA
TCCTGCATCATCAGAAATTCCCTCCTCGGCCTGGAAAAGACAGCCAGCATATCCATCGCAGACCCCTTCTTCAGG
AGCGCCCAGCCCTGGATCGCGGCCCTGGCAGGGACCCTGCCTATCTCGTTGCTGCTTCTCGCAGGAGCCAGTTAC
TTCTTGTGGAGACAACAGAAGGAAAAAATTGCTCTGTCCAGGGAGACAGAAAGAGAGCGAGAGATGAAAGAAATG
GGATACGCTGCAACAGAGCAAGAAATAAGCCTAAGAGAGAAGCTCCAGGAGGAACTCAAGTGGAGGAAAATCCAG
TACATGGCTCGTGGAGAGAAGTCTTTGGCCTATCATGAATGGAAAATGGCCCTCTTCAAACCTGCGGATGTGATT
CTGGATCCAGACACGGCAAACGCCATCCTCCTTGTTTCTGAGGACCAGAGGAGTGTGCAGCGTGCTGAAGAGCCG
CGGGATCTGCCAGACAACCCTGAGAGATTTGAATGGCGTTACTGTGTCCTTGGCTGTGAAAACTTCACATCAGGG
AGACATTACTGGGAGGTGGAAGTGGGGGACAGAAAGAGTGGCATATTGGGGTATGTAGTAAGAACGTGGAGAGG
AAAAAAGGTTGGGTCAAAATGACACCGGAGAACGGATACTGGACTATGGGCCTGACTGATGGGAATAAGTATCGG
GCTCTCACTGAGCCCAGAACCAACCTGAAACTTCCTGAGCCTCCTAGGAAAGTGGGGATCTTCCTGGACTATGAG
ACTGGAGAGATCTCGTTCTATAATGCCACAGATGGATCTCATATCTACACCTTTCCGCACGCCTCTTTCTCTGAG
CCTCTATATCCTGTTTTCAGAATTTTGACCTTGGAGCCCACTGCCCTGACCATTTGCCCAATACCAAAAGAAGTA
GAGAGTTCCCCCGATCCTGACCTAGTGCCTGATCATTCCCTGGAGACACCACTGACCCCGGGCTTAGCTAATGAA
AGTGGGGAGCCTCAGGCTGAAGTAACATCTCTGCTTCTCCCTGCCCACCCTGGAGCTGAGGTCTCCCCTTCTGCA
ACAACCAATCAGAACCATAAGCTACAGGCACGCACTGAAGCACTTTAC**TGA**TATTCATTCCATTATTCCATATGA
CAGTTGTTTTGAGTTTCGTACCACCTTATTGTCCCCTTATACAGATAAGGAAACTGGGGTGCAGAAAGGTGAATT
AACTTTACAAAGTAGACATGACAAGTGAACAGCAGAGCTGGGATCTAAACAGCAATAACTAACATTAACAGAGAA
TTTAAAATGTTCTTAGTGCTGTGTTATAAGCTTTGGTGGATGTCACTCCTTTAATCCTCACAACACCCTGTCGGG
TAGTCATATTTTGCAAGTATGGAAGCTGAGGCAGGGCAACATGAAGTAACTTACATAATTCATACAGTAATTTGT
GCAGTTGGGAGATGTTCAGCCTTAGTCCCTGGCTAATTGCCTGTTCTTTTCCAGCCTGATTTTTTTTCCCACAGG
AAGAGCCCACATGTAGCCCTGAGGTTTCCTTCCCAGGACAGCTGCAGGGTAGAGATCATTTTAAGTGCTTGTGGA
GTTGACATCCCTATTGACTCTTTCCCAGCTGATATCAGAGACTTAGACCCAGCACTCCTTGGATTAGCTCTGCAG
AGTGTCTTGGTTGAGAGAATAACCTCATAGTACCAACATGACATGTGACTTGGAAAGAGACTAGAGGCCACACTT
GATAAATCATGGGGCACAGATATGTTCCCACCCAACAAATGTGATAAGTGATTGTGCAGCCAGAGCCAGCCTTCC
TTCAATCAAGGTTTCCAGGCAGAGCAAATACCCTAGAGATTCTCTGTGATATAGGAAATTTGGATCAAGGAAGCT
AAAAGAATTACAGGGATGTTTTTAATCCCACTATGGACTCAGTCTCCTGGAAATAGGTCTGTCCACTCCTGGTCA
TTGGTGGATGTTAAACCCATATTCCTTTCAACTGCTGCCTGCTAGGGAAAACTGCTCCTCATTATCATCACTATT
ATTGCTCACCACTGTATCCCCTCTACTTGGCAAGTGGTTGTCAAGTTCTAGTTGTTCAATAAATGTGTTAATAAT
GAAAAAAAAAAA

FIGURE 409

MKMASSLAFLLLNFHVSLFLVQLLTPCSAQFSVLGPSGPILAMVGEDADLPCHLFPTMSAETMELRWVSSSLRQV
VNVYADGKEVEDRQSAPYRGRTSILRDGITAGKAALRIHNVTASDSGKYLCYFQDGDFYEKALVELKVAALGSDL
HIEVKGYEDGGIHLECRSTGWYPQPQIKWSDTKGENIPAVEAPVVADGVGLYAVAASVIMRGSSGGGVSCIIRNS
LLGLEKTASISIADPFFRSAQPWIAALAGTLPISLLLLAGASYFLWRQQKEKIALSRETEREREMKEMGYAATEQ
EISLREKLQEELKWRKIQYMARGEKSLAYHEWKMALFKPADVILDPDTANAILLVSEDQRSVQRAEEPRDLPDNP
ERFEWRYCVLGCENFTSGRHYWEVEVGDRKEWHIGVCSKNVERKKGWVKMTPENGYWTMGLTDGNKYRALTEPRT
NLKLPEPPRKVGIFLDYETGEISFYNATDGSHIYTFPHASFSEPLYPVFRILTLEPTALTICPIPKEVESSPDPD
LVPDHSLETPLTPGLANESGEPQAEVTSLLLPAHPGAEVSPSATTNQNHKLQARTEALY

FIGURE 410

CGCACTCCCTGCTGGGTGAGCAGCACTGTAAAG**ATG**AAGCTGGCTAACTGGTACTGGCTGAGCTCAGCTGTTCTT
GCCACTTACGGTTTTTTGGTTGTGGCAAACAATGAAACAGAGGAAATTAAAGATGAAAGAGCAAAGGATGTCTGC
CCAGTGAGACTAGAAAGCAGAGGGAAATGCGAAGAGGCAGGGGAGTGCCCCTACCAGGTAAGCCTGCCCCCCTTG
ACTATTCAGCTCCCGAAGCAATTCAGCAGGATCGAGGAGGTGTTCAAAGAAGTCCAAAACCTCAAGGAAATCGTA
AATAGTCTAAAGAAATCTTGCCAAGACTGCAAGCTGCAGGCTGATGACAACGGAGACCCAGGCAGAAACGGACTG
TTGTTACCCAGTACAGGAGCCCCGGGAGAGGTTGGTGATAACAGAGTTAGAGAATTAGAGAGTGAGGTTAACAAG
CTGTCCTCTGAGCTAAAGAATGCCAAAGAGGAGATCAATGTACTTCATGGTCGCCTGGAGAAGCTGAATCTTGTA
AATATGAACAACATAGAAAATTATGTTGACAGCAAAGTGGCAAATCTAACATTTGTTGTCAATAGTTTGGATGGC
AAATGTTCAAAGTGTCCCAGCCAAGAACAAATACAGTCACGTCCAGTTCAACATCTAATATATAAAGATTGCTCT
GACTACTACGCAATAGGCAAAAGAAGCAGTGAGACCTACAGAGTTACACCTGATCCCAAAAATAGTAGCTTTGAA
GTTTACTGTGACATGGAGACCATGGGGGGAGGCTGGACAGTGCTGCAGGCACGTCTCGATGGGAGCACCAACTTC
ACCAGAACATGGCAAGACTACAAAGCAGGCTTTGGAAACCTCAGAAGGGAATTTTGGCTGGGGAACGATAAAATT
CATCTTCTGACCAAGAGTAAGGAAATGATTCTGAGAATAGATCTTGAAGACTTTAATGGTGTCGAACTATATGCC
TTGTATGATCAGTTTTATGTGGCTAATGAGTTTCTCAAATATCGTTTACACGTTGGTAACTATAATGGCACAGCT
GGAGATGCATTACGTTTCAACAAACATTACAACCACGATCTGAAGTTTTTCACCACTCCAGATAAAGACAATGAT
CGATATCCTTCTGGGAACTGTGGGCTGTACTACAGTTCAGGCTGGTGGTTTGATGCATGTCTTTCTGCAAACTTA
AATGGCAAATATTATCACCAAAAATACAGAGGTGTCCGTAATGGGATTTTCTGGGGTACCTGGCCTGGTGTAAGT
GAGGCACACCCTGGTGGCTACAAGTCCTCCTTCAAAGAGGCTAAGATGATGATCAGACCCAAGCACTTTAAGCCA
TAAATCACTCTGTTCATTCCTCCAGGTATTCGTTATCTAATAGGGCAATTAATTCCTTCAGCACTTTAGAATATG
CCTTGTTTCATATTTTTCATAGCTAAAAAATGTTTGACATCCTTTGAGATATTTTATTACTAAAATCTGCC

FIGURE 411

MKLANWYWLSSAVLATYGFLVVANNETEEIKDERAKDVCPVRLESRGKCEEAGECPYQVSLPPLTIQLPKQFSRI
EEVFKEVQNLKEIVNSLKKSCQDCKLQADDNGDPGRNGLLLPSTGAPGEVGDNRVRELESEVNKLSSELKNAKEE
INVLHGRLEKLNLVNMNNIENYVDSKVANLTFVVNSLDGKCSKCPSQEQIQSRPVQHLIYKDCSDYYAIGKRSSE
TYRVTPDPKNSSFEVYCDMETMGGGWTVLQARLDGSTNFTRTWQDYKAGFGNLRREFWLGNDKIHLLTKSKEMIL
RIDLEDFNGVELYALYDQFYVANEFLKYRLHVGNYNGTAGDALRFNKHYNHDLKFFTTPDKDNDRYPSGNCGLYY
SSGWWFDACLSANLNGKYYHQKYRGVRNGIFWGTWPGVSEAHPGGYKSSFKEAKMMIRPKHFKP

FIGURE 412

TCCCAGCTGCGCGTCGCAGTCCCGACGCGAGAAGGGCTGGAGTCGGCGTCCAGCCTAGAGCCCCGGTGGGAGCC
AGGCCGGGACGCGTGCACC**ATG**CCCTACCTGCTCATCAGCACCCAGATCCGCATGGAGGTGGGCCCCACTATGGT
GGGCGATGAACAGTCGGATCCAGAGCTGATGCAGCATCTGGGGGCTTCAAAGAGAAGAGCCTTGGGAAACAACTT
TTATGAATACTACGTCGATGACCCTCCCCGCATAGTCCTGGACAAGCTGGAACGCAGGGGCTTCCGTGTGCTGAG
CATGACGGGGGTGGGCCAGACGCTGGTGTGGTGTCTGCACAAGGAG**TGA**CCTTCTCATGCTGATTTGCAGACGGG
GCACCCCTGTGGAGGGGCTGCTGTGGGCCCTGACCTCCAAGCTCCTGCCTCACCGTCTGCCTTGCTCCTCTCTTC
CCAAATCATCACCGCCATGGGCCCAGCCCCAAAGGGCAGTGAATGGCCTTCTCTGAAACCCTGCGTCAAGCAGTG
GGAGAGGGCAGTGCCCGGTGCCCTGGTGCTCCCAGCTGCCCTCCTGCTTCGGGCCTGGGCCGAGGGCCTTGTGTA
GGCCATGTTCCTCGGGCAGCTGCCCCGGGCCGGAGCTGGGCACTCCAGCGGCCCTGGCGCGTGGCTCCTGCATAG
CTAGCCCAAGCCAATAAAGGGCTGTGATGAGTGGCTGC

FIGURE 413

MPYLLISTQIRMEVGPTMVGDEQSDPELMQHLGASKRRALGNNFYEYYVDDPPRIVLDKLERRGFRVLSMTGVGQ
TLVWCLHKE

FIGURE 414

GCGTCTGCCAGGAGCTACGGCCGGAAG**ATG**GCGGCGGCCGCAGAGTTGTCGCTACTGGAGAAGTCCCTGGGACTG
AGTAAGGGGAATAAATACAGTGCTCAGGGCGAGCGACAGATTCCAGTTCTTCAGACAAACAATGGTCCAAGTCTA
ACAGGATTGACTACTATAGCAGCTCATCTAGTCAAGCAAGCCAACAAAGAATATTTGCTGGGGAGTACTGCAGAA
GAAAAAGCAATCGTTCAGCAGTGGTTAGAATACAGGGTCACTCAAGTAGATGGGCACTCCAGTAAAAATGACATC
CACACACTGTTGAAGGATCTTAATTCATATCTTGAAGATAAAGTCTACCTTACAGGGTATAACTTTACATTAGCA
GATATACTATTGTACTATGGACTTCATCGCTTTATAGTTGACCTGACAGTTCAAGAAAAGGAGAAATATCTTAAT
GTGTCTCGCTGGTTTTGTCACATTCAGCATTATCCAGGCATCAGGCAACATCTGTCTAGTGTTGTCTTCATCAAG
AACAGACTATATACTAATTCCCAC**TAG**AAGCTGTCCATGCCATACAGAAGATCTATTAAAAGTGTTTAAATGGA
AAATGTACTCTAGACCACAGGACTAATGTAAATTAATATACAGTCATTCATTATTTGTTGAAGTTGATAGAATTT
TTGAAGTGTAAACTTGTGTCTGAATGTTTTATTTGTTCTTTAGCTGAAGTTTTGCAATTTTTATGTCAAAATTCA
ATTGCTATTAAACAAGTTGAGATCCAGTTATAAATTAACCTTGTTTTTAGTAGATGACATTTATTTCAATAAAAG
TTGCAAATCGGGCTTAATCTTAAAATTGGTGGTCATTTCAATGGTTGACATATTTGGCTATTTATTAACCTCTCT
TTCATATTCTAAAATTCATTTTCCCCTTATGGATATTTATGGTAGTTTGTTAAGAACTGATAAATTGTGCCAAGG
AAGCCAAAAGGGAAGACAGATGGATTTGTTTTAAAATGTTTATGTGAGCTAGTAAATGTGGGAAAAAAAAAAAAA
AAAAAAAAAAAAAAAA

FIGURE 415

MAAAAELSLLEKSLGLSKGNKYSAQGERQIPVLQTNNGPSLTGLTTIAAHLVKQANKEYLLGSTAEEKAIVQQWL
EYRVTQVDGHSSKNDIHTLLKDLNSYLEDKVYLTGYNFTLADILLYYGLHRFIVDLTVQEKEKYLNVSRWFCHIQ
HYPGIRQHLSSVVFIKNRLYTNSH

FIGURE 416

CCGGGACTTTGCAGGCAGCGGCGGCCGGGGGCGGAGCGGGATCGAGCCCTCGCCGAGGCCTGCCGCCATGGGCCC
GCGCCGCCGCCGCCTGTCACCCGGGCCGCGCGGGCCGTGAGCGTC**ATG**GCCTTGGCCGGGGCCCCTGCGGGC
GGCCCATGCGCGCCGGCGCTGGAGGCCCTGCTCGGGGCCGGCGCGCTGCGGCTGCTCGACTCCTCGCAGATCGTC
ATCATCTCCGCCGCGCAGGACGCCAGCGCCCCGCCGGCTCCCACCGGCCCCGCGGCGCCCGCCGCCGGCCCCTGC
GACCCTGACCTGCTGCTCTTCGCCACACCGCAGGCGCCCCGGCCCACACCCAGTGCGCCGCGGCCCGCGCTCGGC
CGCCCGCCGGTGAAGCGGAGGCTGGACCTGGAAACTGACCATCAGTACCTGGCCGAGAGCAGTGGGCCAGCTCGG
GGCAGAGGCCGCCATCCAGGAAAAGGTGTGAAATCCCCGGGGGAGAAGTCACGCTATGAGACCTCACTGAATCTG
ACCACCAAGCGCTTCCTGGAGCTGCTGAGCCACTCGGCTGACGGTGTCGTCGACCTGAACTGGGCTGCCGAGGTG
CTGAAGGTGCAGAAGCGGCGCATCTATGACATCACCAACGTCCTTGAGGGCATCCAGCTCATTGCCAAGAAGTCC
AAGAACCACATCCAGTGGCTGGGCAGCCACACCACAGTGGGCGTCGGCGGACGGCTTGAGGGGTTGACCCAGGAC
CTCCGACAGCTGCAGGAGAGCGAGCAGCAGCTGGACCACCTGATGAATATCTGTACTACGCAGCTGCGCCTGCTC
TCCGAGGACACTGACAGCCAGCGCCTGGCCTACGTGACGTGTCAGGACCTTCGTAGCATTGCAGACCCTGCAGAG
CAGATGGTTATGGTGATCAAAGCCCCTCCTGAGACCCAGCTCCAAGCCGTGGACTCTTCGGAGAACTTTCAGATC
TCCCTTAAGAGCAAACAAGGCCCGATCGATGTTTTCCTGTGCCCTGAGGAGACCGTAGGTGGGATCAGCCCTGGG
AAGACCCCATCCCAGGAGGTCACTTCTGAGGAGGAGAACAGGGCCACTGACTCTGCCACCATAGTGTCACCACCA
CCATCATCTCCCCCCTCATCCCTCACCACAGATCCCAGCCAGTCTCTACTCAGCCTGGAGCAAGAACCGCTGTTG
TCCCGGATGGGCAGCCTGCGGGCTCCCGTGGACGAGGACCGCCTGTCCCCGCTGGTGGCGGCCGACTCGCTCCTG
GAGCATGTGCGGGAGGACTTCTCCGGCCTCCTCCCTGAGGAGTTCATCAGCCTTTCCCCACCCCACGAGGCCCTC
GACTACCACTTCGGCCTCGAGGAGGGCGAGGGCATCAGAGACCTCTTCGACTGTGACTTTGGGGACCTCACCCCC
CTGGATTTC**TGA**CAGGGCTTGGAGGGACCAGGGTTTCCAGAGTAGCTCACCTTGTCTCTGCAGCCCTGGAGCCCC
CTGTCCCTGGCCGTCCTCCCAGCCTGTTTGGAAACATTTAATTTATACCCCTCTCCTCTGTCTCCAGAAGCTTCT
AGCTCTGGGGTCTGGCTACCGCTAGGAGGCTGAGCAAGCCAGGAAGGGAAGGAGTCTGTGTGGTGTGTATGTGCA
TGCAGCCTACACCCACACGTGTGTACCGGGGGTGAATGTGTGTGAGCATGTGTGTGTGCATGTACCGGGGAATGA
AGGTGAACATACACCTCTGTGTGTGCACTGCAGACACGCCCCAGTGTGTCCACATGTGTGTGCATGAGTCCATCT
CTGCGCGTGGGGGGGCTCTAACTGCACTTTCGGCCCTTTTGCTCGTGGGGTCCCACAAGGCCCAGGGCAGTGCCT
GCTCCCAGAATCTGGTGCTCTGACCAGGCCAGGTGGGGAGGCTTTGGCTGGCTGGGCGTGTAGGACGGTGAGAGC
ACTTCTGTCTTAAAGGTTTTTTCTGATTGAAGCTTTAATGGAGCGTTATTTATTTATCGAGGCCTCTTTGGTGAG
CCTGGGGAATCAGCAAAAGGGGAGGAGGGGTGTGGGGTTGATACCCCAACTCCCTCTACCCTTGAGCAAGGGCAG
GGGTCCCTGAGCTGTTCTTCTGCCCCATACTGAAGGAACTGAGGCCTGGGTGATTTATTTATTGGGAAAGTGAGG
GAGGGAGACAGACTGACTGACAGCCATGGGTGGTCAGATGGTGGGGTGGGCCCTCTCCAGGGGGCCAGTTCAGGG
CCCAGCTGCCCCCCAGGATGGATATGAGATGGGAGAGGTGAGTGGGGGACCTTCACTGATGTGGGCAGGAGGGGT
GGTGAAGGCCTCCCCCAGCCCAGACCCTGTGGTCCCTCCTGCAGTGTCTGAAGCGCCTGCCTCCCCACTGCTCTG
CCCCACCCTCCAATCTGCACTTTGATTTGCTTCCTAACAGCTCTGTTCCCTCCTGCTTTGGTTTTAATAAATATT
TTGATGACGTT

FIGURE 417

MALAGAPAGGPCAPALEALLGAGALRLLDSSQIVIISAAQDASAPPAPTGPAAPAAGPCDPDLLLFATPQAPRPT
PSAPRPALGRPPVKRRLDLETDHQYLAESSGPARGRGRHPGKGVKSPGEKSRYETSLNLTTKRFLELLSHSADGV
VDLNWAAEVLKVQKRRIYDITNVLEGIQLIAKKSKNHIQWLGSHTTVGVGGRLEGLTQDLRQLQESEQQLDHLMN
ICTTQLRLLSEDTDSQRLAYVTCQDLRSIADPAEQMVMVIKAPPETQLQAVDSSENFQISLKSKQGPIDVFLCPE
ETVGGISPGKTPSQEVTSEEENRATDSATIVSPPPSSPPSSLTTDPSQSLLSLEQEPLLSRMGSLRAPVDEDRLS
PLVAADSLLEHVREDFSGLLPEEFISLSPPHEALDYHFGLEEGEGIRDLFDCDFGDLTPLDF

FIGURE 418

CCTTGCTATAGAAGACCTGGGACAGAGGACTGCTGTCTGCCCTCTCTGGTCACCCTGCCTAGCTAGAGGATCTGT
GACCCCAGCC**ATG**AGGACCCTCGCCATCCTTGCTGCCATTCTCCTGGTGGCCCTGCAGGCCCAGGCTGAGCCACT
CCAGGCAAGAGCTGATGAGGTTGCTGCAGCCCCGGAGCAGATTGCAGCGGACATCCCAGAAGTGGTTGTTTCCCT
TGCATGGGACGAAAGCTTGGCTCCAAAGCATCCAGGCTCAAGGAAAAACATGGACTGCTATTGCAGAATACCAGC
GTGCATTGCAGGAGAACGTCGCTATGGAACCTGCATCTACCAGGGAAGACTCTGGGCATTCTGCTGC**TGA**GCTTG
CAGAAAAAGAAAAATGAGCTCAAAATTTGCTTTGAGAGCTACAGGGAATTGCTATTACTCCTGTACCTTCTGCTC
AATTTCCTTTCCTCATCTCAAATAAATGCCTTGTTAC

FIGURE 419

MRTLAILAAILLVALQAQAEPLQARADEVAAAPEQIAADIPEVVVSLAWDESLAPKHPGSRKNMDCYCRIPACIA
GERRYGTCIYQGRLWAFCC

FIGURE 420

AGCGGGTGCGGGGCGGGACCGGCCCGGCCTATATATTGGGTTGGCGCCGGCGCCAGCTGAGCCGAGCGGTAGCTG
GTCTGGCGAGGTTTTATACACCTGAAAGAAGAGA**ATG**TCAAGACGAAGTAGCCGTTTACAAGCTAAGCAGCAGCC
CCAGCCCAGCCAGACGGAATCCCCCCAAGAAGCCCAGATAATCCAGGCCAAGAAGAGGAAAACTACCCAGGATGT
CAAAAAAAGAAGAGAGGAGGTCACCAAGAAACATCAGTATGAAATTAGGAATTGTTGGCCACCTGTATTATCTGG
GGGGATCAGTCCTTGCATTATCATTGAAACACCTCACAAAGAAATAGGAACAAGTGATTTCTCCAGATTTACAAA
TTACAGATTTAAAAATCTTTTTATTAATCCTTCACCTTTGCCTGATTTAAGCTGGGGATGTTCAAAAGAAGTCTG
GCTAAACATGTTAAAAAAGGAGAGCAGATATGTTCATGACAAACATTTTGAAGTTCTGCATTCTGACTTGGAACC
ACAGATGAGGTCCATACTTCTAGACTGGCTTTTAGAGGTATGTGAAGTATACACACTTCATAGGGAAACATTTTA
TCTTGCACAAGACTTTTTTGATAGATTTATGTTGACACAAAAGGATATAAATAAAAATATGCTTCAACTCATTGG
AATTACCTCATTATTCATTGCTTCCAAACTTGAGGAAATCTATGCTCCTAAACTCCAAGAGTTTGCTTACGTCAC
TGATGGTGCTTGCAGTGAAGAGGATATCTTAAGGATGGAACTCATTATATTAAAGGCTTTAAAATGGGAACTTTG
TCCTGTAACAATCATCTCCTGGCTAAATCTCTTTCTCCAAGTTGATGCTCTTAAAGATGCTCCTAAAGTTCTTCT
ACCTCAGTATTCTCAGGAAACATTCATTCAAATAGCTCAGCTTTTAGATCTGTGTATTCTAGCCATTGATTCATT
AGAGTTCCAGTACAGAATACTGACTGCTGCTGCCTTGTGCCATTTTACCTCCATTGAAGTGGTTAAGAAAGCCTC
AGGTTTGGAGTGGGACAGTATTTCAGAATGTGTAGATTGGATGGTACCTTTTGTCAATGTAGTAAAAAGTACTAG
TCCAGTGAAGCTGAAGACTTTTAAGAAGATTCCTATGGAAGACAGACATAATATCCAGACACATACAAACTATTT
GGCTATGCTGGAGGAAGTAAATTACATAAACACCTTCAGAAAAGGGGGACAGTTGTCACCAGTGTGCAATGGAGG
CATTATGACACCACCGAAGAGCACTGAAAAACCACCAGGAAAACAC**TAA**AGAAGATAACTAAGCAAACAAGTTGG
AATTCACCAAGATTGGGTAGAACTGGTATCACTGAACTACTAAAGTTTTACAGAAAGTAGTGCTGTGATTGATTG
CCCTAGCCAATTCACAAGTTACACTGCCATTCTGATTTTAAAACTTACAATTGGCACTAAAGAATACATTTAATT
ATTTCCTATGTTAGCTGTTAAAGAAACAGCAGGACTTGTTTACAAAGATGTCTTCATTCCCAAGGTTACTGGATA
GAAGCCAACCACAGTCTATACCATAGCAATGTTTTTCCTTTAATCCAGTGTTACTGTGTTTATCTTGATAAACTA
GGAATTTTGTCACTGGAGTTTTGGACTGGATAAGTGCTACCTTAAAGGGTATACTAAGTGATACAGTACTTTGAA
TCTAGTTGTTAGATTCTCAAAATTCCTACACTCTTGACTAGTGCAATTTGGTTCTTGAAAATTAAATTTAAACTT
GTTTACAAAGGTTTAGTTTTGTAATAAGGTGACTAATTTATCTATAGCTGCTATAGCAAGCTATTATAAAACTTG
AATTTCTACAAATGGTGAAATTTAATGTTTTTTAAACTAGTTTATTTGCCTTGCCATAACACATTTTTTAACTAA
TAAGGCTTAGATGAACATGGTGTTCAACCTGTGCTCTAAACAGTGGGAGTACCAAAGAAATTATAAACAAGATAA
ATGCTGTGGCTCCTTCCTAACTGGGGCTTTCTTGACATGTAGGTTGCTTGGTAATAACCTTTTTGTATATCACAA
TTTGGGTGAAAAACTTAAGTACCCTTTCAAACTATTTATATGAGGAAGTCACTTTACTACTCTAAGATATCCCTA
AGGAATTTTTTTTTTTAATTTAGTGTGACTAAGGCTTTATTTATGTTTGTGAAACTGTTAAGGTCCTTTCTAAAT
TCCTCCATTGTGAGATAAGGACAGTGTCAAAGTGATAAAGCTTAACACTTGACCTAAACTTCTATTTTCTTAAGG
AAGAAGAGTATTAAATATATACTGACTCCTAGAAATCTATTTATTAAAAAAAGACATGAAAACTTGCTGTACATA
GGCTAGCTATTTCTAAATATTTTAAATTAGCTTTTCTAAAAAAAAAAATCCAGCCTCATAAAGTAGATTAGAAAAC
TAGATTGCTAGTTTATTTTGTTATCAGATATGTGAATCTCTTCTCCCTTTGAAGAAACTATACATTTATTGTTAC
GGTATGAAGTCTTCTGTATAGTTTGTTTTTAAACTAATATTTGTTTCAGTATTTTGTCTGAAAAGAAAACACCAC
TAATTGTGTACATATGTATTATATAAACTTAACCTTTTAATACTGTTTATTTTTAGCCCATTGTTTAAAAAATAA
AAGTTAAAAAAATTTAACTGCTTAAAAGTAAAAAAAAAAAAAAAAAAAA

FIGURE 421

MSRRSSRLQAKQQPQPSQTESPQEAQIIQAKKRKTTQDVKKRREEVTKKHQYEIRNCWPPVLSGGISPCIIIETP
HKEIGTSDFSRFTNYRFKNLFINPSPLPDLSWGCSKEVWLNMLKKESRYVHDKHFEVLHSDLEPQMRSILLDWLL
EVCEVYTLHRETFYLAQDFFDRFMLTQKDINKNMLQLIGITSLFIASKLEEIYAPKLQEFAYVTDGACSEEDILR
MELIILKALKWELCPVTIISWLNLFLQVDALKDAPKVLLPQYSQETFIQIAQLLDLCILAIDSLEFQYRILTAAA
LCHFTSIEVVKKASGLEWDSISECVDWMVPFVNVVKSTSPVKLKTFKKIPMEDRHNIQTHTNYLAMLEEVNYINT
FRKGGQLSPVCNGGIMTPPKSTEKPPGKH

FIGURE 422

AAACTTCCCGCACGCGTTACAGGAGCCAGGTCGGTATAAGCGCCAGCGGCCTCGCCGCCCGTCAAGCTGTCCACA
TCCCTGGCCTCAGCCCGCCACATCACCCTGACCTGCTTACGCCCAGATTTTCTTCAATCACATCTGAATAAATCA
CTTGAAGAAAGCTTATAGCTTCATTGCACCATGTGTGGCATTTGGGCGCTGTTTGGCAGTGATGATTGCCTTTCT
GTTCAGTGTCTGAGTGCTATGAAGATTGCACACAGAGGTCCAGATGCATTCCGTTTTGAGAATGTCAATGGATAC
ACCAACTGCTGCTTTGGATTTCACCGGTTGGCGGTAGTTGACCCGCTGTTTGGAATGCAGCCAATTCGAGTGAAG
AAATATCCGTATTTGTGGCTCTGTTACAATGGTGAAATCTACAACCATAAGAAGATGCAACAGCATTTTGAATTT
GAATACCAGACCAAAGTGGATGGTGAGATAATCCTTCATCTTTATGACAAAGGAGGAATTGAGCAAACAATTTGT
ATGTTGGATGGTGTGTTTGCATTTGTTTTACTGGATACTGCCAATAAGAAAGTGTTCCTGGGTAGAGATACATAT
GGAGTCAGACCTTTGTTTAAAGCAATGACAGAAGATGGATTTTTGGCTGTATGTTCAGAAGCTAAAGGTCTTGTT
ACATTGAAGCACTCCGCGACTCCCTTTTTAAAAGTGGAGCCTTTTCTTCCTGGACACTATGAAGTTTTGGATTTA
AAGCCAAATGGCAAAGTTGCATCCGTGGAAATGGTTAAATATCATCACTGTCGGGATGAACCCCTGCACGCCCTC
TATGACAATGTGGAGAAACTCTTTCCAGGTTTTGAGATAGAAACTGTGAAGAACAACCTCAGGATCCTTTTTAAT
AATGCTGTAAAGAAACGTTTGATGACAGACAGAAGGATTGGCTGCCTTTTATCAGGGGGCTTGGACTCCAGCTTG
GTTGCTGCCACTCTGTTGAAGCAGCTGAAAGAAGCCCAAGTACAGTATCCTCTCCAGACATTTGCAATTGGCATG
GAAGACAGCCCCGATTTACTGGCTGCTAGAAAGGTGGCAGATCATATTGGAAGTGAACATTATGAAGTCCTTTTT
AACTCTGAGGAAGGCATTCAGGCTCTGGATGAAGTCATATTTTCCTTGGAAACTTATGACATTACAACAGTTCGT
GCTTCAGTAGGTATGTATTTAATTTCCAAGTATATTCGGAAGAACACAGATAGCGTGGTGATCTTCTCTGGAGAA
GGATCAGATGAACTTACGCAGGGTTACATATATTTTCACAAGGCTCCTTCTCCTGAAAAAGCCGAGGAGGAGAGT
GAGAGGCTTCTGAGGGAACTCTATTTGTTTGATGTTCTCCGCGCAGATCGAACTACTGCTGCCCATGGTCTTGAA
CTGAGAGTCCCATTTCTAGATCATCGATTTTCTTCCTATTACTTGTCTCTGCCACCAGAAATGAGAATTCCAAAG
AATGGGATAGAAAAACATCTCCTGAGAGAGACGTTTGAGGATTCCAATCTGATACCCAAAGAGATTCTCTGGCGA
CCAAAAGAAGCCTTCAGTGATGGAATAACTTCAGTTAAGAATTCCTGGTTTAAGATTTTACAGGAATACGTTGAA
CATCAGGTTGATGATGCAATGATGGCAAATGCAGCCCAGAAATTTCCCTTCAATACTCCTAAAACCAAAGAAGGA
TATTACTACCGTCAAGTCTTTGAACGCCATTACCCAGGCCGGGCTGACTGGCTGAGCCATTACTGGATGCCCAAG
TGGATCAATGCCACTGACCCTTCTGCCCGCACGCTGACCCACTACAAGTCAGCTGTCAAAGCTTAGGTGGTCTTT
ATGCTGTAATGTGAAAGCAAATATTTCTTCGTGTTGGATGGGGACTGTGGGTAGATAGGGGAACAATGAGAGTCA
ACTCAGGCTAACTTGGGTGTGAAAAAAATAAAAGTCCTAAATCT

FIGURE 423

MCGIWALFGSDDCLSVQCLSAMKIAHRGPDAFRFENVNGYTNCCFGFHRLAVVDPLFGMQPIRVKKYPYLWLCYN
GEIYNHKKMQQHFEFEYQTKVDGEIILHLYDKGGIEQTICMLDGVFAFVLLDTANKKVFLGRDTYGVRPLFKAMT
EDGFLAVCSEAKGLVTLKHSATPFLKVEPFLPGHYEVLDLKPNGKVASVEMVKYHHCRDEPLHALYDNVEKLFPG
FEIETVKNNLRILFNNAVKKRLMTDRRIGCLLSGGLDSSLVAATLLKQLKEAQVQYPLQTFAIGMEDSPDLLAAR
KVADHIGSEHYEVLFNSEEGIQALDEVIFSLETYDITTVRASVGMYLISKYIRKNTDSVVIFSGEGSDELTQGYI
YFHKAPSPEKAEEESERLLRELYLFDVLRADRTTAAHGLELRVPFLDHRFSSYYLSLPPEMRIPKNGIEKHLLRE
TFEDSNLIPKEILWRPKEAFSDGITSVKNSWFKILQEYVEHQVDDAMMANAAQKFPFNTPKTKEGYYYRQVFERH
YPGRADWLSHYWMPKWINATDPSARTLTHYKSAVKA

FIGURE 424

GGCACGAGGCAGCAAAATGGCGCCAGAACTAGTGGCGGGCTGAGGACGCCGTACCCCTCGGAAGGCAGCCCTGCG
GTCCCTTTGCCGCCCGTTCCCTCCCGGACATGGAGGACGTGGAGGCGCGCTTCGCCCACCTCTTGCAGCCCATCC
GCGACCTCACCAAGAACTGGGAGGTGGACGTGGCGGCCCAGCTGGGCGAGTATCTGGAGGAGCTGGATCAGATCT
GCATTTCTTTTGACGAAGGCAAGACCACAATGAACTTCATTGAGGCAGCGTTGTTGATCCAGGGCTCTGCCTGCG
TCTACAGTAAGAAGGTGGAATACCTCTACTCACTCGTCTACCAGGCCCTTGATTTCATCTCTGGAAAGAGGCGGG
CCAAGCAGCTCTCTTCGGTGCAGGAGGACAGGGCCAATGGGGTTGCCAGCTCCGGGGTCCCCCAGGAGGCAGAGA
ATGAGTTCCTGTCGCTGGATGACTTCCCTGACTCCCGGACTAACGTGGATCTCAAGAATGATCAGACGCCCAGTG
AGGTCCTCATCATCCCCCTCCTGCCC**ATG**GCCCTGGTGGCCCCTGATGAAATGGAGAAGAACAACAATCCCCTGT
ACAGCCGTCAGGGTGAGGTCCTGGCCAGCCGGAAGGATTTCAGGATGAACACGTGCGTTCCCCACCCCAGAGGGG
CCTTCATGTTGGAGCCAGAGGGCATGTCCCCCATGGAACCAGCGGGCGTTTCCCCCATGCCAGGGACCCAGAAGG
ACACCGGGAGGACTGAGGAGCAGCCAATGGAAGTTTCCGTGTGCAGGAGCCCTGTCCCAGCACTCGGCTTCTCCC
AGGAGCCAGGCCCCTCTCCAGAAGGCCCGATGCCCCTGGGTGGGGGCGAGGACGAGGATGCAGAGGAGGCAGTAG
AGCTTCCTGAGGCCTCGGCCCCCAAGGCCGCTCTGGAGCCCAAGGAGTCCAGGAGCCCGCAGCAGGTGGGACCCA
CATGGAGGCCTGCAGAACCTGAGCTGTGAACTGGCAACCCTGGCTCTGGGGCCGAGTCACCTTGCACAAGGAGGA
CAGTGGTATGGCCTTGGCCCCAGACCACTGGTCTGGGGCAGAAGCCCACCTGTCTTGCAGCCCGTCCTGCAACCA
GCCCTTTTGAAGAGCAGCTTCTGTGTTCCTCCCCTCTCTGAGCAGAACTGATGCTCCTCAGAGTAGTGGGCTGGC
GTCCAAGGATTTGAGCCCTGTCGAGCTCACGGCAACCTGGGATGGCCGCCGGTTGCCAAGGCGCCTCTCTGCAGT
CGGGCTGGTAGGAGGGAGTGTCTGGAGGCCATTGCTGCCTCCCTCAACCCCCGGGGTCAACTGTACCCAGCCTAG
AGCCAAGAAATCCTTCCTTTTTATTCATTAAAACAAAATCAACCTGAAAAAAAAAAAAAAAAAAA

FIGURE 425

MALVAPDEMEKINNPLYSRQGEVLASRKDFRMNTCVPHPRRAFMLEPEGMSPMEPAGVSPMPGTQNDTGRTEEQP
MEVSVCRSPVPALGFSQEPGPSPERPMPLGGGEDEDAEEAVELPEASAPKAALEPKESRSPQQSAALPRRYMLRE
REGAPEPASCVKETPDLWQSLDPLNSLESKPFKKGRPYSVPPCVEEALGQKRKRKGAAKLQDFHQWYLVAYADHA
DSRRLRRKGPSFADMEVLYWTHVKEQLETLRKLQRREVAEQWLRPAEEDHLEDSPGRPGGSR

FIGURE 426

TTGGAACCAGAGAGAAGCCGGG**ATG**GAAACTCCAAACACCACAGAGGACTATGACACGACCACAGAGTTTGACTA
TGGGGATGCAACTCCGTGCCAGAAGGTGAACGAGAGGGCCTTTGGGGCCCAACTGCTGCCCCCTCTGTACTCCTT
GGTATTTGTCATTGGCCTGGTTGGAAACATCCTGGTGGTCCTGGTCCTTGTGCAATACAAGAGGCTAAAAAACAT
GACCAGCATCTACCTCCTGAACCTGGCCATTTCTGACCTGCTCTTCCTGTTCACGCTTCCCTTCTGGATCGACTA
CAAGTTGAAGGATGACTGGGTTTTTGGTGATGCCATGTGTAAGATCCTCTCTGGGTTTTATTACACAGGCTTGTA
CAGCGAGATCTTTTTCATCATCCTGCTGACGATTGACAGGTACCTGGCCATCGTCCACGCCGTGTTTGCCTTGCG
GGCACGGACCGTCACTTTTGGTGTCATCACCAGCATCATCATTTGGGCCCTGGCCATCTTGGCTTCCATGCCAGG
CTTATACTTTTCCAAGACCCAATGGGAATTCACTCACCACACCTGCAGCCTTCACTTTCCTCACGAAAGCCTACG
AGAGTGGAAGCTGTTTCAGGCTCTGAAACTGAACCTCTTTGGGCTGGTATTGCCTTTGTTGGTCATGATCATCTG
CTACACAGGGATTATAAAGATTCTGCTAAGACGACCAAATGAGAAGAAATCCAAAGCTGTCCGTTTGATTTTTGT
CATCATGATCATCTTTTTTCTCTTTTGGACCCCCTACAATTTGACTATACTTATTTCTGTTTTCCAAGACTTCCT
GTTCACCCATGAGTGTGAGCAGAGCAGACATTTGGACCTGGCTGTGCAAGTGACGGAGGTGATCGCCTACACGCA
CTGCTGTGTCAACCCAGTGATCTACGCCTTCGTTGGTGAGAGGTTCCGGAAGTACCTGCGGCAGTTGTTCCACAG
GCGTGTGGCTGTGCACCTGGTTAAATGGCTCCCCTTCCTCTCCGTGGACAGGCTGGACAGGGTCAGCTCCACATC
TCCCTCCACAGGGGAGCATGAACTCTCTGCTGGGTTC**TGA**CTCAGACCATAGGAGGCCAACCCAAAATAAGCAGG
CGTGACCTGCCAGGCACACTGAGCCAGCAGCCTGGCTCTCCCAGCCAGGTTCTGACTCTTGGCACAGCATGGAGT
CACAGCCACTTGGGATAGAGAGGGAATGTAATGGTGGCCTGGGGCTTCTGAGGCTTCTGGGGCTTCAGTCTTTTC
CATGAACTTCTCCCCTGGTAGAAAGAAGATGAATGAGCAAAACCAAATATTCCAGAGACTGGGACTAATGTACCA
GAGAAGGGCTTGGACTCAAGCAAGATTTCAGATTTGTGACCATTAGCATTTGTCAACAAAGTCACCCACTTCCCA
CTATTGCTTGCACAAACCAATTAAACCCAGTAGTGGTGACTGTGGGCTCCATTCAAAGTGAGCTCCTAAGCCATG
GGAGACACTGATGTATGAGGAATTTCTGTTCTTCCATCACCTCCCCCCCCCCGCCACCCTCCCACTGCCAAAGAA
CTTGGAAATAGTGATTTCCACAGTGACTCCACTCTGAGTCCCAGAGCCAATCAGTAGCCAGCATCTGCCTCCCCT
TCACTCCCACCGCAGATTTGGGCTCTTGGAATCCTGGGGAACATAGAACTCATGACGGAAGAGTTGAGACCTAAC
GAGAAATAGAAATGGGGAACTACTGCTGGCAGTGGAACTAAGAAAGCCCTTAGGAAGAATTTTTATATCCACTAA
AATCAAACAATTCAGGGAGTGGGCTAAGCACGGGCCATATGAATAACATGGTGTGCTTCTTAAAATAGCCATAAA
GGGGAGGGACTCATCATTTCCATTTACCCTTCTTTTCTGACTATTTTTCAGAATCTCTCTTCTTTTCAAGTTGGG
TGATATGTTGGTAGATTCTAATGGCTTTATTGCAGCGGTTAATAACAGGCAAAAGGAAGCAGGGTTGGTTTCCCT
TCTTTTTGTTCTTCATCTAAGCCTTCTGGTTTTATGGGTCAGAGTTCCGACTGCCATCTTGGACTTGTCAGCAAA
AAAAAATAATAATAATAATAATAAGGCCTGCTGTGTAAGCTGACAGTATTTGTAGCTGATAGGGGGTTGGGAGGA
AGTGTCTACTAGGAGGGTGGGTGAGATCTGTGTTGATGT

FIGURE 427

METPNTTEDYDTTTEFDYGDATPCQKVNERAFGAQLLPPLYSLVFVIGLVGNILVVLVLVQYKRLKNMTSIYLLN
LAISDLLFLFTLPFWIDYKLKDDWVFGDAMCKILSGFYYTGLYSEIFFIILLTIDRYLAIVHAVFALRARTVTFG
VITSIIIWALAILASMPGLYFSKTQWEFTHHTCSLHFPHESLREWKLFQALKLNLFGLVLPLLVMIICYTGIIKI
LLRRPNEKKSKAVRLIFVIMIIFFLFWTPYNLTILISVFQDFLFTHECEQSRHLDLAVQVTEVIAYTHCCVNPVI
YAFVGERFRKYLRQLFHRRVAVHLVKWLPFLSVDRLDRVSSTSPSTGEHELSAGF

FIGURE 428

GGCACGAGCCCAGAAACAAAGACTTCACGGACAAAGTCCCTTGGAACCAGAGAGAAGCCGGG**ATG**GAAACTCCAA
ACACCACAGAGGACTATGACACGACCACAGAGTTTGACTATGGGGATGCAACTCCGTGCCAGAAGGTGAACGAGA
GGGCCTTTGGGGCCCAACTGCTGCCCCCTCTGTACTCCTTGGTATTTGTCATTGGCCTGGTTGGAAACATCCTGG
TGGTCCTGGTCCTTGTGCAATACAAGAGGCTAAAAAACATGACCAGCATCTACCTCCTGAACCTGGCCATTTCTG
ACCTGCTCTTCCTGTTCACGCTTCCCTTCTGGATCGACTACAAGTTGAAGGATGACTGGGTTTTTGGTGATGCCA
TGTGTAAGATCCTCTCTGGGTTTTATTACACAGGCTTGTACAGCGAGATCTTTTTCATCATCCTGCTGACGATTG
ACAGGTACCTGGCCATCGTCCACGCCGTGTTTGCCTTGCGGGCACGGACCGTCACTTTTGGTGTCATCACCAGCA
TCATCATTTGGGCCCTGGCCATCTTGGCTTCCATGCCAGGCTTATACTTTTCCAAGACCCAATGGGAATTCACTC
ACCACACCTGCAGCCTTCACTTTCCTCACGAAAGCCTACGAGAGTGGAAGCTGTTTCAGGCTCTGAAACTGAACC
TCTTTGGGCTGGTATTGCCTTTGTTGGTCATGATCATCTGCTACACAGGGATTATAAAGATTCTGCTAAGACGAC
CAAATGAGAAGAAATCCAAAGCTGTCCGTTTGATTTTTGTCATCATGATCATCTTTTTTCTCTTTTGGACCCCCT
ACAATTTGACTATACTTATTTCTGTTTTCCAAGACTTCCTGTTCACCCATGAGTGTGAGCAGAGCAGACATTTGG
ACCTGGCTGTGCAAGTGACGGAGGTGATCGCCTACACGCACTGCTGTGTCAACCCAGTGATCTACGCCTTCGTTG
GTGAGAGGTTCCGGAAGTACCTGCGGCAGTTGTTCCACAGGCGTGTGGCTGTGCACCTGGTTAAATGGCTCCCCT
TCCTCTCCGTGGACAGGCTGGAGAGGGTCAGCTCCACATCTCCCTCCACAGGGGAGCATGAACTCTCTGCTGGGT
TC**TGA**CTCAGACCATAGGAGGCCAACCCAAAATAAGCAGGCGTGACCTGCCAGGCACACTGAGCCAGCAGCCTGG
CTCTCCCAGCCAGGTTCTGACTCTTGGCACAGCATGGAGTCACAGCCACTTGGGATAGAGAGGGAATGTAATGGT
GGCCTGGGGCTTCTGAGGCTTCTGGGGCTTCAGTCTTTTCCATGAACTTCTCCCCTGGTAGAAAGAAGATGAATG
AGCAAAACCAAATATTCCAGAGACTGGGACTAAGTGTACCAGAGAAGGGCTTGGACTCAAGCAAGATTTCAGATT
TGTGACCATTAGCATTTGTCAACAAAGTCACCCACTTCCCACTATTGCTTGCACAAACCAATTAAACCCAGTAGT
GGTGACTGTGGGCTCCATTCAAAGTGAGCTCCTAAGCCATGGGAGACACTGATGTATGAGGAATTTCTGTTCTTC
CATCACCTCCCCCCCCCCGCCACCCTCCCACTGCCAAGAACTTGGAAATAGTGATTTCCACAGTGACTCCACTCT
GAGTCCCAGAGCCAATCAGTAGCCAGCATCTGCCTCCCCTTCACTCCCACCGCAGGATTGGGCTCTTGGAATCC
TGGGGAACATAGAACTCATGACGGAAGAGTTGAGACCTAACGAGAAATAGAAATGGGGGAACTACTGCTGGCAGT
GGAACTAAGAAAGCCCTTAGGAAGAATTTTTATATCCACTAAAATCAAACAATTCAGGGAGTGGGCTAAGCACGG
GCCATATGAATAACATGGTGTGCTTCTTAAAATAGCCATAAAGGGGAGGGACTCATCATTTCCATTTACCCTTCT
TTTCTGACTATTTTTCAGAATCTCTCTTCTTTTCAAGTTGGGTGATATGTTGGTAGATTCTAATGGCTTTATTGC
AGCGATTAATAACAGGCAAAAGGAAGCAGGGTTGGTTTCCCTTCTTTTTGTTCTTCATCTAAGCCTTCTGGTTTT
ATGGGTCAGAGTTCCGACTGCCATCTTGGACTTGTCAGCAAAAAAAAAAAAAAAAAAA

FIGURE 429

METPNTTEDYDTTTEFDYGDATPCQKVNERAFGAQLLPPLYSLVFVIGLVGNILVVLVLVQYKRLKNMTSIYLLN
LAISDLLFLFTLPFWIDYKLKDDWVFGDAMCKILSGFYYTGLYSEIFFIILLTIDRYLAIVHAVFALRARTVTFG
VITSIIIWALAILASMPGLYFSKTQWEFTHHTCSLHFPHESLREWKLFQALKLNLFGLVLPLLVMIICYTGIIKI
LLRRPNEKKSKAVRLIFVIMIIFFLFWTPYNLTILISVFQDFLFTHECEQSRHLDLAVQVTEVIAYTHCCVNPVI
YAFVGERFRKYLRQLFHRRVAVHLVKWLPFLSVDRLERVSSTSPSTGEHELSAGF

FIGURE 430

AAGGACACGGGCAGCAGACAGTGGTCAGTCCTTTCTTGGCTCTGCTGACACTCGAGCCCACATTCCGTCACCTGC
TCAGAATC**ATG**CAGGTCTCCACTGCTGCCCTTGCTGTCCTCCTCTGCACCATGGCTCTCTGCAACCAGTTCTCTG
CATCACTTGCTGCTGACACGCCGACCGCCTGCTGCTTCAGCTACACCTCCCGGCAGATTCCACAGAATTTCATAG
CTGACTACTTTGAGACGAGCAGCCAGTGCTCCAAGCCCGGTGTCATCTTCCTAACCAAGCGAAGCCGGCAGGTCT
GTGCTGACCCCAGTGAGGAGTGGGTCCAGAAATATGTCAGCGACCTAGAGCTGAGTGCC**TGA**GGGGTCCAGAAGC
TTCGAGGCCCAGCGACCTCGGTGGGCCAGTGGGGAGGAGCAGGAGCCTGAGCCTTGGGAAACATGCGTGTGACCT
CCACAGCTACCTCTTCTATGGACTGGTTGTTGCCAAACAGCCACACTGTGGGACTCTTCTTAACTTAAATTTTAA
TTTATTTATACTATTTAGTTTTTGTAATTTATTTTCGATTTCACAGTGTGTTTGTGATTGTTTGCTCTGAGAGTT
CCCCTGTCCCCTCCCCCTTCCCTCACACCGCGTCTGGTGACAACCGAGTGGCTGTCATCAGCCTGTGTAGGCAGT
CATGGCACCAAAGCCACCAGACTGACAAATGTGTATCGGATGCTTTTGTTCAGGGCTGTGATCGGCCTGGGGAAA
TAATAAAGCACGCTCTTTTAAAAGGT

FIGURE 431

MQVSTAALAVLLCTMALCNQFSASLAADTPTACCFSYTSRQIPQNFIADYFETSSQCSKPGVIFLTKRSRQVCAD
PSEEWVQKYVSDLELSA

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FIGURE 432

GCTACACTAGAGCAGAGTACGAGTCTGAGGCGGAGGGAGTA**ATG**GCAGGACAAGCGTTTAGAAAGTTTCTTCCAC
TCTTTGACCGAGTATTGGTTGAAAGGAGTGCTGCTGAAACTGTAACCAAAGGAGGCATTATGCTTCCAGAAAAAT
CTCAAGGAAAAGTATTGCAAGCAACAGTAGTCGCTGTTGGATCGGGTTCTAAAGGAAAGGGTGGAGAGATTCAAC
CAGTTAGCGTGAAAGTTGGAGATAAAGTTCTTCTCCCAGAATATGGAGGCACCAAAGTAGTTCTAGATGACAAGG
ATTATTTCCTATTTAGAGATGGTGACATTCTTGGAAAGTACGTAGAC**TGA**AATAAGTCACTATTGAAATGGCATC
AACATGATGCTGCCCATTCCACTGAAGTTCTGAAATCTTTCGTCATGTAAATAATTTCCATATTTCTCTTTTATA
ATAAACTAATGATAACTAATGACATCCAGTGTCTCCAAAATTGTTTCCTTGTACTGATATAAACACTTCCAAATA
AAAATATGTAAAT

FIGURE 433

MAGQAFRKFLPLFDRVLVERSAAETVTKGGIMLPEKSQGKVLQATVVAVGSGSKGKGGEIQPVSVKVGDKVLLPE
YGGTKVVLDDKDYFLFRDGDILGKYVD

FIGURE 434

CTCCGCTGCTGTCGCCAGGAGTCACTTCACGAGAAGCCAGGTCACAACCGTCGGCCCTTGTCTGGAAAAGTAAAA
GTGGATCCTGCCACGTTCGGAGCTCCCTGGCGCCTCGCCCGGCTGGAGCTAGAGAACTCGTCCTGTGGCGGCCCC
CGGCGTGGGGCGGGACAGCGGCCCCCTGGAGGGGGCAGTCCCGGGAGAACCTGCGGCGGCCGGAGCGGTAAAAAT
AAGTGACTAAAGAAGCAGACCTGGGAATCACCTAAC**ATG**TCGAGGAGGAGATTTGATTGCCGAAGTATTTCAGGC
CTACTAACTACAACTCCTCAAATTCCAATAAAAATGGAAAACTTTAATAATTTCTATATACTTACATCTAAAGAG
CTAGGGAGAGGAAAATTTGCTGTGGTTAGACAATGTATATCAAAATCTACTGGCCAAGAATATGCTGCAAAATTT
CTAAAAAAGAGAAGAAGAGGACAGGATTGTCGGGCAGAAATTTTACACGAGATTGCTGTGCTTGAATTGGCAAAG
TCTTGTCCCCGTGTTATTAATCTTCATGAGGTCTATGAAAATACAAGTGAAATCATTTTGATATTGGAATATGCT
GCAGGTGGAGAAATTTTCAGCCTGTGTTTACCTGAGTTGGCTGAAATGGTTTCTGAAAATGATGTTATCAGACTC
ATTAAACAAATACTTGAAGGAGTTTATTATCTACATCAGAATAACATTGTACACCTTGATTTAAAGCCACAGAAT
ATATTACTGAGCAGCATATACCCTCTCGGGGACATTAAAATAGTAGATTTTGGAATGTCTCGAAAAATAGGGCAT
GCGTGTGAACTTCGGGAAATCATGGGAACACCAGAATATTTAGCTCCAGAAATCCTGAACTATGATCCCATTACC
ACAGCAACAGATATGTGGAATATTGGTATAATAGCATATATGTTGTTAACTCACACATCACCATTTGTGGGAGAA
GATAATCAAGAAACATACCTCAATATTTCTCAAGTTAATGTAGATTATTCGGAAGAAACTTTTTCATCAGTTTCA
CAGCTGGCCACAGACTTTATTCAGAGCCTTTTAGTAAAAAATCCAGAGAAAAGACCAACAGCAGAGATATGCCTT
TCTCATTCTTGGCTACAGCAGTGGGACTTTGAAAACTTGTTTCACCCTGAAGAAACTTCCAGTTCCTCTCAAACT
CAGGATCATTCTGTAAGGTCCTCTGAAGACAAGACTTCTAAATCCTCCTGTAATGGAACCTGTGGTGATAGAGAA
GACAAAGAGAATATCCCAGAGGATAGCAGCATGGTTTCCAAAAGATTTCGTTTCGATGACTCATTACCCAATCCC
CATGAACTTGTTTCAGATTTGCTCTGT**TAG**CACTTTTTTCTTTGACTCATTTGGACTGAATTTGAAATTTTATAT
CCACTCCAGTGAGATTATGATTTGTAGCTTCATATATGACATGTTTATATTGTAAATGCACTTTTCCATGGAATA
ATTTAGGGAAGTGTTTTAATGTTAAATTACTAGTTGCTAGCATGTTATGATTTCATATCCTGAGATAGCTCTGCA
GATAAGAAAATATTTAAATATATGACAAAAAGTAAAATTGTACATGTGAAAG

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FIGURE 435

MSRRRFDCRSISGLLTTTPQIPIKMENFNNFYILTSKELGRGKFAVVRQCISKSTGQEYAAKFLKKRRRGQDCRA
EILHEIAVLELAKSCPRVINLHEVYENTSEIILILEYAAGGEIFSLCLPELAEMVSENDVIRLIKQILEGVYYLH
QNNIVHLDLKPQNILLSSIYPLGDIKIVDFGMSRKIGHACELREIMGTPEYLAPEILNYDPITTATDMWNIGIIA
YMLLTHTSPFVGEDNQETYLNISQVNVDYSEETFSSVSQLATDFIQSLLVKNPEKRPTAEICLSHSWLQQWDFEN
LFHPEETSSSSQTQDHSVRSSEDKTSKSSCNGTCGDREDKENIPEDSSMVSKRFRFDDSLPNPHELVSDLLC

FIGURE 436

TAACTGAGCGAGGAGCAATTGATTAATAGCTCGGCGAGGGGACTCACTGACTGTTATAATAACACTACACCAGCA
ACTCCTGGCTTCCCAGCAGCCGGAACACAGACAGGAGAGAGTCAGTGGCAAATAGACATTTTTCTTATTTCTTAA
AAAACAGCAACTTGTTTGCTACTTTTATTTCTGTTGATTTTTTTTCTTGGTGTGTGTGGTGGTTGTTTTTAAGT
GTGGAGGGCAAAAGGAGATACCATCCCAGGCTCAGTCCAACCCCTCTCCAAAACGGCTTTTCTGACACTCCAGGT
AGCGAGGGAGTTGGGTCTCCAGGTTGTGCGAGGAGCAA**ATG**ATGACCGCCAAGGCCGTAGACAAAATCCCAGTAA
CTCTCAGTGGTTTTGTGCACCAGCTGTCTGACAACATCTACCCGGTGGAGGACCTCGCCGCCACGTCGGTGACCA
TCTTTCCCAATGCCGAACTGGGAGGCCCCTTTGACCAGATGAACGGAGTGGCCGGAGATGGCATGATCAACATTG
ACATGACTGGAGAGAAGAGGTCGTTGGATCTCCCATATCCCAGCAGCTTTGCTCCCGTCTCTGCACCTAGAAACC
AGACCTTCACTTACATGGGCAAGTTCTCCATTGACCCTCAGTACCCTGGTGCCAGCTGCTACCCAGAAGGCATAA
TCAATATTGTGAGTGCAGGCATCTTGCAAGGGGTCACTTCCCCAGCTTCAACCACAGCCTCATCCAGCGTCACCT
CTGCCTCCCCCAACCCACTGGCCACAGGACCCCTGGGTGTGTGCACCATGTCCCAGACCCAGCCTGACCTGGACC
ACCTGTACTCTCCGCCACCGCCTCCTCCTCCTTATTCTGGCTGTGCAGGAGACCTCTACCAGGACCCTTCTGCGT
TCCTGTCAGCAGCCACCACCTCCACCTCTTCCTCTCTGGCCTACCCACCACCTCCTTCCTATCCATCCCCCAAGC
CAGCCACGGACCCAGGTCTCTTCCCAATGATCCCAGACTATCCTGGATTCTTTCCATCTCAGTGCCAGAGAGACC
TACATGGTACAGCTGGCCCAGACCGTAAGCCCTTTCCCTGCCCACTGGACACCCTGCGGGTGCCCCCTCCACTCA
CTCCACTCTCTACAATCCGTAACTTTACCCTGGGGGGCCCCAGTGCTGGGGTGACCGGACCAGGGGCCAGTGGAG
GCAGCGAGGGACCCCGGCTGCCTGGTAGCAGCTCAGCAGCAGCAGCAGCCGCCGCCGCCGCCGCCTATAACCCAC
ACCACCTGCCACTGCGGCCCATTCTGAGGCCTCGCAAGTACCCCAACAGACCCAGCAAGACGCCGGTGCACGAGA
GGCCCTACCCGTGCCCAGCAGAAGGCTGCGACCGGCGGTTCTCCCGCTCTGACGAGCTGACACGGCACATCCGAA
TCCACACTGGGCATAAGCCCTTCCAGTGTCGGATCTGCATGCGCAACTTCAGCCGCAGTGACCACCTCACCACCC
ATATCCGCACCCACACCGGTGAGAAGCCCTTCGCCTGTGACTACTGTGGCCGAAAGTTTGCCCGGAGTGATGAGA
GGAAGCGCCACACCAAGATCCACCTGAGACAGAAAGAGCGGAAAAGCAGTGCCCCTCTGCATCGGTGCCAGCCC
CCTCTACAGCCTCCTGCTCTGGGGGCGTGCAGCCTGGGGGTACCCTGTGCAGCAGTAACAGCAGCAGTCTTGGCG
GAGGGCCGCTCGCCCCTTGCTCCTCTCGGACCCGGACACCT**TGA**GATGAGACTCAGGCTGATACACCAGCTCCCA
AAGGTCCCGGAGGCCCTTTGTCCACTGGAGCTGCACAACAAACACTACCACCCTTTCCTGTCCCTCTCTCCCTTT
GTTGGGCAAAGGGCTTTGGTGGAGCTAGCACTGCCCCCTTTCCACCTAGAAGCAGGTTCTTCCTAAAACTTAGCC
CATTCTAGTCTCTCTTAGGTGAGTTGACTATCAACCCAAGGCAAAGGGGAGGCTCAGAAGGAGGTGGTGTGGGGA
TCCCCTGGCCAAGAGGGCTGAGGTCTGACCCTGCTTTAAAGGGTTGTTTGACTAGGTTTTGCTACCCCACTTCCC
CTTATTTTGACCCATCACAGGTTTTTGACCCTGGATGTCAGAGTTGATCTAAGACGTTTTCTACAATAGGTTGGG
AGATGCTGATCCCTTCAAGTGGGGACAGCAAAAAGACAAGCAAAACTGATGTGCACTTTATGGCTTGGGACTGAT
TTGGGGGACATTGTACAGTGAGTGAAGTATAGCCTTTATGCCACACTCTGTGGCCCTAAAATGGTGAATCAGAGC
ATATCTAGTTGTCTCAACCCTTGAAGCAATATGTATTATATACTCAGAGAACAGAAGTGCAATGTGATGGGAGGA
ACGTAGCAATATCTGCTCCTTTTCGAGTTGTTTGAGAAATGTAGGCTATTTTTTCAGTGTATATCCACTCAGATT
TTGTGTATTTTTGATGTACCCACACTGTTCTCTAAATTCTGAATCTTTGGGAAAAAATGTAAAGCATTTATGATC
TCAGAGGTTAACTTATTTAAGGGGGATGTACATATTCTCTGAAACTAGGATGCATGCAATTGTGTTGGAAGTGTC
CTTGGTCGCCTTGTGTGATGTAGACAAATGTTACAAGGCTGCATGTAAATGGGTTGCCTTATTATGGAGAAAAAA
ATCACTCCCTGAGTTTAGTATGGCTGTATATTTATGCCTATTAATATTTGGAATTTTTTTAGAAAGTATATTTT
TGTATGCTTTGTTTTGTGACTTAAAAGTGTTACCTTTGTAGTCAAATTTCAGATAAGAATGTACATAATGTTACC
GGAGCTGATTTGTTTGGTCATTAGCTCTTAATAGTTGTGAAAAAATAAATCTATTCTAACGCAAAACCACTAACT
GAAGTTCAGATATAATGGATGGTTTGTGACTATAGTGTAAATAAATACTTTTCAACAAT

FIGURE 437

MMTAKAVDKIPVTLSGFVHQLSDNIYPVEDLAATSVTIFPNAELGGPFDQMNGVAGDGMINIDMTGEKRSLDLPY
PSSFAPVSAPRNQTFTYMGKFSIDPQYPGASCYPEGIINIVSAGILQGVTSPASTTASSSVTSASPNPLATGPLG
VCTMSQTQPDLDHLYSPPPPPPPYSGCAGDLYQDPSAFLSAATTSTSSSLAYPPPPSYPSPKPATDPGLFPMIPD
YPGFFPSQCQRDLHGTAGPDRKPFPCPLDTLRVPPPLTPLSTIRNFTLGGPSAGVTGPGASGGSEGPRLPGSSSA
AAAAAAAAAYNPHHLPLRPILRPRKYPNRPSKTPVHERPYPCPAEGCDRRFSRSDELTRHIRIHTGHKPFQCRIC
MRNFSRSDHLTTHIRTHTGEKPFACDYCGRKFARSDERKRHTKIHLRQKERKSSAPSASVPAPSTASCSGGVQPG
GTLCSSNSSSLGGGPLAPCSSRTRTP

FIGURE 438A

ATGAACCTCTGAAAACTGCCGGCATCTGAGGTTTCCTCCAAGGCCCTCTGAAGTGCAGCCCATA**ATG**AAGGTCTT
GGCGGCAGGAGTTGTGCCCCTGCTGTTGGTTCTGCACTGGAAACATGGGGCGGGGAGCCCCCTCCCCATCACCCC
TGTCAACGCCACCTGTGCCATACGCCACCCATGTCACAACAACCTCATGAACCAGATCAGGAGCCAACTGGCACA
GCTCAATGGCAGTGCCAATGCCCTCTTTATTCTCTATTACACAGCCCAGGGGGAGCCGTTCCCCAACAACCTGGA
CAAGCTATGTGGCCCCAACGTGACGGACTTCCCGCCCTTCCACGCCAACGGCACGGAGAAGGCCAAGCTGGTGGA
GCTGTACCGCATAGTCGTGTACCTTGGCACCTCCCTGGGCAACATCACCCGGGACCAGAAGATCCTCAACCCCAG
TGCCCTCAGCCTCCACAGCAAGCTCAACGCCACCGCCGACATCCTGCGAGGCCTCCTTAGCAACGTGCTGTGCCG
CCTGTGCAGCAAGTACCACGTGGGCCATGTGGACGTGACCTACGGCCCTGACACCTCGGGTAAGGATGTCTTCCA
GAAGAAGAAGCTGGGCTGTCAACTCCTGGGGAAGTATAAGCAGATCATCGCCGTGTTGGCCCAGGCCTTC**TAG**CA
GGAGGTCTTGAAGTGTGCTGTGAACCGAGGGATCTCAGGAGTTGGGTCCAGATGTGGGGGCCTGTCCAAGGGTGG
CTGGGGCCCAGGGCATCGCTAAACCCAAATGGGGGCTGCTGGCAGACCCCGAGGGTGCCTGGCCAGTCCACTCCA
CTCTGGGCTGGGCTGTGATGAAGCTGAGCAGAGTGGAAACTTCCATAGGGAGGGAGCTAGAAGAAGGTGCCCCTT
CCTCTGGGAGATTGTGGACTGGGGAGCGTGGGCTGGACTTCTGCCTCTACTTGTCCCTTTGGCCCCTTGCTCACT
TTGTGCAGTGAACAAACTACACAAGTCATCTACAAGAGCCCTGACCACAGGGTGAGACAGCAGGGCCCAGGGGAG
TGGACCAGCCCCCAGCAAATTATCACCATCTGTGCCTTTGCTGCCCCTTAGGTTGGGACTTAGGTGGGCCAGAGG
GGCTAGGATCCCAAAGGACTCCTTGTCCCCTAGAAGTTTGATGAGTGGAAGATAGAGAGGGGCCTCTGGGATGGA
AGGCTGTCTTCTTTTGAGGATGATCAGAGAACTTGGGCATAGGAACAATCTGGCAGAAGTTTCCAGAAGGAGGTC
ACTTGGCATTCAGGCTCTTGGGGAGGCAGAGAAGCCACCTTCAGGCCTGGGAAGGAAGACACTGGGAGGAGGAGA
GGCCTGGAAAGCTTTGGTAGGTTCTTCGTTCTCTTCCCCGTGATCTTCCCTGCAGCCTGGGATGGCCAGGGTCTG
ATGGCTGGACCTGCAGCAGGGGTTTGTGGAGGTGGGTAGGGCAGGGCAGGTTGCTAAGTCAGGTGCAGAGGTTC
TGAGGGACCCAGGCTCTTCCTCTGGGTAAAGGTCTGTAAGAAGGGGCTGGGGTAGCTCAGAGTAGCAGCTCACAT
CTGAGGCCCTGGGAGGTCTTGTGAGGTCACACAGAGGTACTTGAGGGGGACTGGAGGCCGTCTCTGGTCCCCAGG
GCAAGGGAACAGCAGAACTTAGGGTCAGGGTCTCAGGGAACCCTGAGCTCCAAGCGTGCTGTGCGTCTGACCTGG
CATGATTTCTATTTATTATGATATCCTATTTATATTAACTTATTGGTGCTTTCAGTGGCCAAGTTAATTCCCCTT
TCCCTGGTCCCTACTCAACAAAATATGATGATGGCTCCCGACACAAGCGCCAGGGCCAGGGCTTAGCAGGGCCTG
GTCTGGAAGTCGACAATGTTACAAGTGGAATAAGCTTACGGGTGAAGCTCAGAGAAGGGTCGGATCTGAGAGAAT
GGGGAGGCCTGAGTGGGAGTGGGGGGCCTTGCTCCACCCCCATCCCCTACTGTGACTTGCTTTAGCGTGTCAGGG
TCCAGGCTGCAGGGGCTGGGCCAATTTGTGGAGAGGCCGGGTGCCTTTCTGTCTTGCTTCCAGGGGGCTGGTTCA
CACTGTTCTTGGGCGCCCCAGCATTGTGTTGTGAGGCGCACTGTTCCTGGCAGATATTGTGCCCCCTGGAGCAGT
GGGCAAGACAGTCCTTGTGGCCCACCCTGTCCTTGTTTCTGTGTCCCCATGCTGCCTCTGAAATAGCGCCCTGGA
ACAACCCTGCCCCTGCACCCAGCATGCTCCGACACAGCAGGGAAGCTCCTCCTGTGGCCCGGACACCCATAGACG
GTGCGGGGGGCCTGGCTGGGCCAGACCCCAGGAAGGTGGGGTAGACTGGGGGGGATCAGCTGCCCATTGCTCCCAA
GAGGAGGAGAGGGAGGCTGCAGACGCCTGGGACTCAGACCAGGAAGCTGTGGGCCCTCCTGCTCCACCCCCATCC
CACTCCCACCCATGTCTGGGCTCCCAGGCAGGGAACCCGATCTCTTCCTTTGTGCTGGGGCCAGGCGAGTGGAGA
AACGCCCTCCAGTCTGAGAGCAGGGGAGGGAAGGAGGCAGCAGAGTTGGGGCAGCTGCTCAGAGCAGTGTTCTGG
CTTCTTCTCAAACCCTGAGCGGGCTGCCGGCCTCCAAGTTCCTCCGACAAGATGATGGTACTAATTATGGTACTT
TTCACTCACTTTGCACCTTTCCCTGTCGCTCTCTAAGCACTTTACCTGGATGGCGCGTGGGCAGTGTGCAGGCAG
GTCCTGAGGCCTGGGGTTGGGGTGGAGGGTGCGGCCCGGAGTTGTCCATCTGTCCATCCCAACAGCAAGACGAGG
ATGTGGCTGTTGAGATGTGGGCCACACTCACCCTTGTCCAGGATGCAGGGACTGCCTTCTCCTTCCTGCTTCATC
CGGCTTAGCTTGGGGCTGGCTGCATTCCCCCAGGATGGGCTTCGAGAAAGACAAACTTGTCTGGAAACCAGAGTT
GCTGATTCCACCCGGGGGGCCCGGCTGACTCGCCCATCACCTCATCTCCCTGTGGACTTGGGAGCTCTGTGCCAG
GCCCACCTTGCGGCCCTGGCTCTGAGTCGCTCTCCCACCCAGCCTGGACTTGGCCCCATGGGACCCATCCTCAGT
GCTCCCTCCAGATCCCGTCCGGCAGCTTGGCGTCCACCCTGCACAGCATCACTGAATCACAGAGCCTTTGCGTGA
AACAGCTCTGCCAGGCCGGGAGCTGGGTTTCTCTTCCCTTTTTATCTGCTGGTGTGGACCACACCTGGGCCTGGC
CGGAGGAAGAGAGAGTTTACCAAGAGAGATGTCTCCGGGCCCTTATTTATTATTTAAACATTTTTTTAAAAAGCA
CTGCTAGTTTACTTGTCTCTCCTCCCCATCGTCCCCATCGTCCTCCTTGTCCCTGACTTGGGGCACTTCCACCCT
GACCCAGCCAGTCCAGCTCTGCCTTGCCGGCTCTCCAGAGTAGACATAGTGTGTGGGGTTGGAGCTCTGGCACCC
GGGGAGGTAGCATTTCCCTGCAGATGGTACAGATGTTCCTGCCTTAGAGTCATCTCTAGTTCCCCACCTCAATCC

FIGURE 438B

CGGCATCCAGCCTTCAGTCCCGCCCACGTGCTAGCTCCGTGGGCCCACCGTGCGGCCTTAGAGGTTTCCCTCCTT
CCTTTCCACTGAAAAGCACATGGCCTTGGGTGACAAATTCCTCTTTGATGAATGTACCCTGTGGGGATGTTTCAT
ACTGACAGATTATTTTTATTTATTCAATGTCATATTTAAAATATTTATTTTTTATACCAAATGAATCACTTTTTT
TTTTAAGAAAAAAAAGAGAAATGAATAAAGAATCTACTCTTCG

FIGURE 439

MKVLAAGVVPLLLVLHWKHGAGSPLPITPVNATCAIRHPCHNNLMNQIRSQLAQLNGSANALFILYYTAQGEPFP
NNLDKLCGPNVTDFPPFHANGTEKAKLVELYRIVVYLGTSLGNITRDQKILNPSALSLHSKLNATADILRGLLSN
VLCRLCSKYHVGHVDVTYGPDTSGKDVFQKKKLGCQLLGKYKQIIAVLAQAF

FIGURE 440A

GCTGGCGGCGGCCGCCCAGGGCCGGGGCCGCGCGCGCCCAGCCTGAGCCCGCCCCGCCGCCGAGCGTCACCGAACCT
GCTTGAAATGCAGCCGAGGAGCCGGGGCGGGCGGCAGCGGCGGCGGCGGCGGCGGGGGCAGCGGCAACCCCG
GCGCCGCGGCAAGGACTCGGAGGGCTGAGACGCGGCGGCGGCGGCGCGGGGAGCGCGGGGCGCGGCGGCCGGAGC
CCGGGCCCGCC**ATG**GGCCTCCCCGAGCCGGGCCCTCTCCGGCTTCTGGCGCTGCTGCTGCTGCTGCTGCTGCTGC
TGCTGCTGCGGCTCCAGCATCTTGCGGCGGCAGCGGCTGATCCGCTGCTCGGCGGCCAAGGGCCGGCCAAGGAGT
GCGAAAAGGACCAATTCCAGTGCCGGAACGAGCGCTGCATCCCCTCTGTGTGGAGATGCGACGAGGACGATGACT
GCTTAGACCACAGCGACGAGGACGACTGCCCCAAGAAGACCTGTGCAGACAGTGACTTCACCTGTGACAACGGCC
ACTGCATCCACGAACGGTGGAAGTGTGACGGCGAGGAGGAGTGTCCTGATGGCTCCGATGAGTCCGAGGCCACTT
GCACCAAGCAGGTGTGTCCTGCAGAGAAGCTGAGCTGTGGACCCACCAGCCACAAGTGTGTACCTGCCTCGTGGC
GCTGCGACGGGGAGAAGGACTGCGAGGGTGGAGCGGATGAGGCCGGCTGTGCTACCTTGTGCGCCCCGCACGAGT
TCCAGTGCGGCAACCGCTCGTGCCTGGCCGCCGTGTTCGTGTGCGACGGCGATGACGACTGTGGTGACGGCAGCG
ATGAGCGCGGCTGTGCAGACCCGGCCTGCGGGCCCCGCGAGTTCCGCTGCGGCGGCGATGGCGGCGGCGCCTGCA
TCCCGGAGCGCTGGGTCTGCGACCGCCAGTTTGACTGCGAGGACCGCTCGGACGAGGCAGCCGAGCTCTGCGGCC
GCCCGGGCCCCGGGGCCACGTCCGCGCCCGCCGCCTGCGCCACCGTCTCCCAGTTCGCCTGCCGCAGCGGCGAGT
GCGTGCACCTGGGCTGGCGCTGCGACGGCGACCGCGACTGCAAAGACAAATCGGACGAGGCCGACTGCCCACTGG
GCACCTGCCGTGGGGACGAGTTCCAGTGTGGGGATGGGACATGTGTCCTTGCAATCAAGCACTGCAACCAGGAGC
AGGACTGTCCAGATGGGAGTGATGAAGCTGGCTGCCTACAGGGGCTGAACGAGTGTCTGCACAACAATGGCGGCT
GCTCACACATCTGCACTGACCTCAAGATTGGGTTTGAATGCACGTGCCCAGCAGGCTTCCAGCTCCTGGACCAGA
AGACCTGTGGCGACATTGATGAGTGCAAGGACCCAGATGCCTGCAGCCAGATCTGTGTCAATTACAAGGGCTATT
TTAAGTGTGAGTGCTACCCTGGCTACGAGATGGACCTACTGACCAAGAACTGCAAGGCTGCTGGTGGAAAGAGCC
CATCCCTAATCTTCACCAACCGGTACGAGGTGCGGAGGATCGACCTGGTGAAGCGGAACTATTCACGCCTCATCC
CCATGCTCAAGAATGTCGTGGCACTAGATGTGGAAGTTGCCACCAATCGCATCTACTGGTGTGACCTCTCCTACC
GTAAGATCTATAGCGCCTACATGGACAAGGCCAGTGACCCGAAAGAGCAGGAGGTCCTCATTGACGAGCAGTTGC
ACTCTCCAGAGGGCCTGGCAGTGGACTGGGTCCACAAGCACATCTACTGGACTGACTCGGGCAATAAGACCATCT
CAGTGGCCACAGTTGATGGTGGCCGCCGACGCACTCTCTTCAGCCGTAACCTCAGTGAACCCCGGGCCATCGCTG
TTGACCCCCTGCGAGGGTTCATGTATTGGTCTGACTGGGGGGACCAGGCCAAGATTGAGAAATCTGGGCTCAACG
GTGTGGACCGGCAAACACTGGTGTCAGACAATATTGAATGGCCCAACGGAATCACCCTGGATCTGCTGAGCCAGC
GCTTGTACTGGGTAGACTCCAAGCTACACCAACTGTCCAGCATTGACTTCAGTGGAGGCAACAGAAAGACGCTGA
TCTCCTCCACTGACTTCCTGAGCCACCCTTTTGGGATAGCTGTGTTTGAGGACAAGGTGTTCTGGACAGACCTGG
AGAACGAGGCCATTTTCAGTGCAAATCGGCTCAATGGCCTGGAAATCTCCATCCTGGCTGAGAACCTCAACAACC
CACATGACATTGTCATCTTCCATGAGCTGAAGCAGCCAAGAGCTCCAGATGCCTGTGAGCTGAGTGTCCAGCCTA
ATGGAGGCTGTGAATACCTGTGCCTTCCTGCTCCTCAGATCTCCAGCCACTCTCCCAAGTACACATGTGCCTGTC
CTGACACAATGTGGCTGGGTCCAGACATGAAGAGGTGCTACCGAGCACCTCAATCTACCTCAACTACGACGTTAG
CTTCTACCATGACGAGGACAGTACCTGCCACCACAAGAGCCCCCGGGACCACCGTCCACAGATCCACCTACCAGA
ACCACAGCACAGAGACACCAAGCCTGACAGCTGCAGTCCCAAGCTCAGTTAGTGTCCCCAGGGCTCCCAGCATCA
GCCCGTCTACCCTAAGCCCTGCAACCAGCAACCACTCCCAGCACTATGCAAATGAAGACAGTAAGATGGGCTCAA
CAGTCACTGCCGCTGTTATCGGGATCATCGTGCCCATAGTGGTGATAGCCCTCCTGTGCATGAGTGGATACCTGA
TCTGGAGAAACTGGAAGCGGAAGAACACCAAAAGCATGAATTTTGACAACCCAGTCTACAGGAAAACAACAGAAG
AAGAAGATGAAGATGAGCTCCATATAGGGAGAACTGCTCAGATTGGCCATG**Ť**CTATCCTGCAGCAATCAGCAGCT
TTGATCGCCCACTGTGGGCAGAGCCCTGTCTTGGGGAGACCAGAGAACCGGAAGACCCAGCCCCTGCCCTCAAGG
AGCTTTTTGTCTTGCCGGGGGAACCAAGGTCACAGCTGCACCAACTCCCGAAGAACCCTCTTTCCGAGCTGCCTG
TCGTCAAATCCAAGCGAGTGGCATTAAGCCTTGAAGATGATGGACTACCC**TGA**GGATGGGATCACCCCCTTCGTG
CCTCATGGAATTCAGTCCCATGCACTACACTCTGGATGGTGTATGACTGGATGAATGGGTTTCTATATATGGGTC
TGTGTGAGTGTATGTGTGTGTGTGATTTTTTTTTTAAATTTATGTTGCGGAAAGGTAACCACAAAGTTATGATGA
ACTGCAAACATCCAAAGGATGTGAGAGTTTTTCTATGTATAATGTTTTATACACTTTTTAACTGGTTGCACTACC
CATGAGGAATTCGTGGAATGGCTACTGCTGACTAACATGATGCACATAACCAAATGGGGGCCAATGGCACAGTAC
CTTACTCATCATTTAAAAACTATATTTACAGAAGATGTTTGGTTGCTGGGGGGGCTTTTTGGGTTTTGGGGCAT
TTGTTTTTTGTAAATAAGATGATTATGCTTTGTGGCTATCCATCAACATAAGTAAAAAAAAAAAAAAAAAACACTTC

FIGURE 440B

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AACTCCCTCCCCCATTTAGATTATTTATTAACATATTTTAAAAATCAGATGAGTTCTATAAATAATTTAGAGAAG
TGAGAGTATTTATTTTTGGCATGTTTGGCCCACCACACAGACTCTGTGTGTGTATGTGTGTGTTTATATGTGTAT
GTGTGTGACAGGAAAATCTGTAGAGAAGAGGCACATCTATGGCTACTGTTCAAATACATAAAGATAAATTTATTT
TCACACAGTCCACAAGGGGTATATCTTGTAGTTTTCAGAAAAGCCTTTGGAAATCTGGATCAGGAAATAGATACC
ATGGTTTGTGCAATTATGTAGTAAAAAAGGCAAATCTTTTCACCTCTGGCTATTCCTGAGACCCCAGGAAGTCAG
GAAAAGCCTTTCAGCTCACCCATGGCTGCTGTGACTCCTACCAGGGCTTTCTTGGCTTTGGCGAAGGTCAGTGTA
CAGACATTCCATGGTACCAGAGTGCTCAGAAAGTCAAGATAGGATATGCCTCACCCTCAGCTACTCCTTGTTTTA
AAGTTCAGCTCTTTGAGTAACTTCTTCAATTTCTTTCAGGACACTTGGGTTGAATTCAGTAAGTTTCCTCTGAAG
CACCCTGAAGGGTGCCATCCTTACAGAGCTAAGTGGAGACGTTTCCAGATCAGCCCAAGTTTACTATAGAGACTG
GCCCAGGCACTGAATGTCTAGGACATGCTGTGGATGAAGATAAAGATGGTGGAATAGGTTTTATCACATCTCTTA
TTTCTCTTTTCCCCTTACTCTCTACCATTTCCTTTATGTGGGGAAACATTTTAAGGTAATAAATAGGTTACTTAC
CATCATATGTTCATATAGATGAAACTAATTTTTGGCTTAAGTCAGAACAACTGGCCCCCAATTGAAGTCATATTT
GTGGGGGGAAATGGCATACGCAATATTATATTATATTGGATATTTATGTTCACACAGGAATTTGGTTTACTGCTT
TGTAAATAAAAGGGAAAACTCCGGGTATATGT
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FIGURE 441

MGLPEPGPLRLLALLLLLLLLLLLRLQHLAAAAADPLLGGQGPAKECEKDQFQCRNERCIPSVWRCDEDDDCLDH
SDEDDCPKKTCADSDFTCDNGHCIHERWKCDGEEECPDGSDESEATCTKQVCPAEKLSCGPTSHKCVPASWRCDG
EKDCEGGADEAGCATLCAPHEFQCGNRSCLAAVFVCDGDDDCGDGSDERGCADPACGPREFRCGGDGGGACIPER
WVCDRQFDCEDRSDEAAELCGRPGPGATSAPAACATVSQFACRSGECVHLGWRCDGDRDCKDKSDEADCPLGTCR
GDEFQCGDGTCVLAIKHCNQEQDCPDGSDEAGCLQGLNECLHNNGGCSHICTDLKIGFECTCPAGFQLLDQKTCG
DIDECKDPDACSQICVNYKGYFKCECYPGYEMDLLTKNCKAAGGKSPSLIFTNRYEVRRIDLVKRNYSRLIPMLK
NVVALDVEVATNRIYWCDLSYRKIYSAYMDKASDPKEQEVLIDEQLHSPEGLAVDWVHKHIYWTDSGNKTISVAT
VDGGRRRTLFSRNLSEPRAIAVDPLRGFMYWSDWGDQAKIEKSGLNGVDRQTLVSDNIEWPNGITLDLLSQRLYW
VDSKLHQLSSIDFSGGNRKTLISSTDFLSHPFGIAVFEDKVFWTDLENEAIFSANRLNGLEISILAENLNNPHDI
VIFHELKQPRAPDACELSVQPNGGCEYLCLPAPQISSHSPKYTCACPDTMWLGPDMKRCYRAPQSTSTTTLASTM
TRTVPATTRAPGTTVHRSTYQNHSTETPSLTAAVPSSVSVPRAPSISPSTLSPATSNHSQHYANEDSKMGSTVTA
AVIGIIVPIVVIALLCMSGYLIWRNWKRKNTKSMNFDNPVYRKTTEEEDEDELHIGRTAQIGHVYPAAISSFDRP
LWAEPCLGETREPEDPAPALKELFVLPGEPRSQLHQLPKNPLSELPVVKSKRVALSLEDDGLP

FIGURE 442

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TAGGATGGAAAGGCAGATGTAAAGTCCCTCATGGCGAAATATAACACGGGGGGCAACCCGACAGAGGATGTCTCA
GTCAATAGCCGACCCTTCAGAGTCACAGGGCCAAACTCATCTTCAGGAATACAAGCAAGAAAGAACTTATTCAAC
AACCAAGGAAATGCCAGCCCTCCTGCAGGACCCAGCAATGTACCTAAGTTTGGGTCCCCAAAGCCACCTGTGGCA
GTCAAACCTTCTTCTGAGGAAAAGCCTGACAAGGAACCCAAGCCCCCGTTTCTAAAGCCCACTGGAGCAGGCCAA
AGATTCGGAACACCAGCCAGCTTGACCACCAGAGACCCCGAGGCGAAAGTGGGATTTCTGAAACCTGTAGGCCCC
AAGCCCATCAACTTGCCCAAAGAAGATTCCAAACCTACATTTCCCTGGCCTCCTGGAAACAAGCCATCTCTTCAC
AGTGTAAACCAAGACCATGACTTAAAGCCACTAGGCCCGAAATCTGGGCCTACTCCTCCAACCTCAGAAAATGAA
CAGAAGCAAGCGTTTCCCAAATTGACTGGGGTTAAAGGGAAATTTATGTCAGCATCACAAGATCTTGAACCCAAG
CCCCTCTTCCCCAAACCCGCCTTTGGCCAGAAGCCGCCCCTAAGTACCGAGAACTCCCATGAAGACGAAAGCCCC
ATGAAGAATGTGTCTTCATCAAAAGGGTCCCCAGCTCCCCTGGGAGTCAGGTCCAAAAGCGGCCCTTTAAAACCA
GCAAGGGAAGACTCAGAAAATAAAGACCATGCAGGGGAGATTTCAAGTTTGCCCTTTCCTGGAGTGGTTTTGAAA
CCTGCTGCGAGCAGGGGAGGCCTAGGTCTCTCCAAAAATGGTGAAGAAAAAAGGAAGATAGGAAGATAGATGCT
GCTAAGAACACCTTCCAGAGCAAAATAAATCAGGAAGAGTTGGCCTCAGGGACTCCTCCTGCCAGGTTCCCTAAG
GCCCCTTCTAAGCTGACAGTGGGGGGGCCATGGGCCAAAGTCAGGAAAAGGAAAAGGGAGACAAGAATTCAGCC
ACCCCGAAACAGAAGCCATTGCCTCCCTTGTTTACCTTGGGTCCACCTCCACCAAAACCCAACAGACCACCAAAT
GTTGACCTGACGAAATTCCACAAAACCTCTTCTGGAAACAGTACTAGCAAAGGCCAGACGTCTTACTCAACAACT
TCCCTGCCACCACCTCCACCATCCCATCCGGCCAGCCAACCACCATTGCCAGCATCTCACCCATCACAACCACCA
GTCCCAAGCCTACCTCCCAGAAACATTAAACCTCCGTTTGACCTAAAAAGCCCTGTCAATGAAGACAATCAAGAT
GGTGTCACGCACTCTGATGGTGCTGGAAATCTAGATGAGGAACAAGACAGTGAAGGAGAAACATATGAAGACATA
GAAGCATCCAAAGAAAGAGAGAAGAAAAGGGAAAAGGAAGAAAGAAGAGGTTAGAGCTGGAGAAAAAGGAACAG
AAAGAGAAAGAAAAGAAAGAACAAGAAATAAAGAAGAAATTTAAACTAACAGGCCCTATTCAAGTCATCCATCTT
GCAAAAGCTTGTTGTGATGTCAAAGGAGGAAAGAATGAACTGAGCTTCAAGCAAGGAGAGCAAATTGAAATCATC
CGCATCACAGACAACCCAGAAGGAAAATGGTTGGGCAGAACAGCAAGGGGTTCATATGGCTATATTAAAACAACT
GCTGTAGAGATTGACTATGATTCTTTGAAACTGAAAAAAGACTCTCTTGGTGCCCCTTCAAGACCTATTGAAGAT
GACCAAGAAGTATATGATGATGTTGCAGAGCAGGATGATATTAGCAGCCACAGTCAGAGTGGAAGTGGAGGGATA
TTCCCTCCACCACCAGATGATGACATTTATGATGGGATTGAAGAGGAAGATGCTGATGATGGTTTCCCTGCTCCT
CCTAAACAATTGGACATGGGAGATGAAGTTTACGATGATGTGGATACCTCTGATTTCCCTGTTTCATCAGCAGAG
ATGAGTCAAGGAACTAATTTTGGAAAAGCTAAGACAGAAGAAAAGGACCTTAAGAAGCTAAAAAAGCAGGAAAAA
GAAGAAAAAGACTTCAGGAAAAAATTTAAATATGATGGTGAAATTAGAGTCCTATATTCAACTAAAGTTACAACT
TCCATAACTTCTAAAAAGTGGGGAACCAGAGATCTACAGGTAAAACCTGGTGAATCTCTAGAAGTTATACAAACC
ACAGATGACACAAAAGTTCTCTGCAGAAATGAAGAAGGGAAATATGGTTATGTCCTTCGGAGTTACCTAGCGGAC
AATGATGGAGAGATCTATGATGATATTGCTGATGGCTGCATCTATGACAATGACTAGCACTCAACTTTGGTCATT
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FIGURE 443

MAKYNTGGNPTEDVSVNSRPFRVTGPNSSSGIQARKNLFNNQGNASPPAGPSNVPKFGSPKPPVAVKPSSEEKPD
KEPKPPFLKPTGAGQRFGTPASLTTRDPEAKVGFLKPVGPKPINLPKEDSKPTFPWPPGNKPSLHSVNQDHDLKP
LGPKSGPTPPTSENEQKQAFPKLTGVKGKFMSASQDLEPKPLFPKPAFGQKPPLSTENSHEDESPMKNVSSSKGS
PAPLGVRSKSGPLKPAREDSENKDHAGEISSLPFPGVVLKPAASRGGLGLSKNGEEKKEDRKIDAAKNTFQSKIN
QEELASGTPPARFPKAPSKLTVGGPWGQSQEKEKGDKNSATPKQKPLPPLFTLGPPPPKPNRPPNVDLTKFHKTS
SGNSTSKGQTSYSTTSLPPPPPSHPASQPPLPASHPSQPPVPSLPPRNIKPPFDLKSPVNEDNQDGVTHSDGAGN
LDEEQDSEGETYEDIEASKEREKKREKEEKKRLELEKKEQKEKEKKEQEIKKKFKLTGPIQVIHLAKACCDVKGG
KNELSFKQGEQIEIIRITDNPEGKWLGRTARGSYGYIKTTAVEIDYDSLKLKKDSLGAPSRPIEDDQEVYDDVAE
QDDISSHSQSGSGGIFPPPPDDDIYDGIEEEDADDGFPAPPKQLDMGDEVYDDVDTSDFPVSSAEMSQGTNFGKA
KTEEKDLKKLKKQEKEEKDFRKKFKYDGEIRVLYSTKVTTSITSKKWGTRDLQVKPGESLEVIQTTDDTKVLCRN
EEGKYGYVLRSYLADNDGEIYDDIADGCIYDND

FIGURE 444A

CGGGTAGCGCGCCTGGGAGGGAGAAAGAAGTCGGGGGGCCGTGGCGCGCAGCCCGCGGGGCCTGAAGGGATGTTCG
AGGACAAGCCCCACGCTGAGGGGGCGGCGGTGGTCGCCGCAGCCGGGGAGGCGCTACAGGCCCTGTGCCAGGAGC
TGAACCTGGACGAGGGGAGCGCGGCCGAAGCCCTGGACGACTTTACTGCCATCCGAGGCAACTACAGCCTAGAGG
GAGAAGTTACACACTGGTTGGCATGTTCATTATATGTTGCATGCCGCAAAAGCATTATTCCCACGGTTGGAAAGG
GTATCATGGAAGGCAACTGTGTTTCACTTACCAGAATACTACGTTCAGCTAAATTAAGTTTAATACAATTTTTTA
GTAAAATGAAGAAATGGATGGACATGTCAAATCTACCACAAGAATTTCGTGAACGTATAGAAAGGCTAGAGAGAA
ATTTTGAGGTGTCTACTGTAATATTCAAAAAATATGAGCCAATTTTTTTAGATATATTTCAAAATCCATATGAAG
AACCACCAAAGTTACCACGAAGCCGGAAGCAGAGGAGGATTCCTTGCAGTGTTAAGGATCTGTTTAATTTCTGTT
GGACACTTTTTGTTTATACTAAGGGTAATTTTCGGATGATTGGGGATGACTTAGTAAACTCTTATCATTACTTC
TATGCTGCTTGGATCTGATTTTTGCCAATGCGATTATGTGCCCAAATAGACAAGACTTGCTAAATCCATCATTTA
AAGGTTTACCATCTGATTTTCATACTGCTGACTTTACGGCTTCTGAAGAGCCACCCTGGCATCATTGCTGTACTG
TGTGAACTGCATGATGGACTTCTCGTAGAAGCAAAAGGAATAAAGGAGCACTACTTTAAGCCATATATTTCAAAA
CTCTTTGACAGGAAGATATTAAAAGGAGAATGCCTCCTGGACCTTTCAAGTTTTACTGATAATAGCAAAGCAGTG
AATAAGGAGTATGAAGAGTATGTTCTAACTGTGGTGATTTTGATGAGAGGATCTTTTGGGAGCAGACGCAGAAGA
GGAAATGGAACACCTCGAAAGTTCACTCGTGACACCCCATTAGGGAAACTGACAGCACAGGCTAATGTGGAGTAT
AACCTTCAACAGCACTTTGAAAAAAAAAGGTCATTTGCACCTTCTACCCCACTGACCGGACGGAGATATTTACGA
GAAAAGAAGCAGTCATTACTCCTGTTGCATCAGCCACCCAAAGTGTGAGCCGGTTACAGAGTATTGTGGCTGGT
CTGAAAAATGCACCAAGTGACCAACTTATAAATATTTTTGAATCTTGTGTGCGTAATCCTGTGGAAAACATTATG
AAAATACTAAAAGGAATAGGAGAGACTTTCTGTCAACACTATACTCAATCAACAGATGAACAGCCAGGATCTCAC
ATAGACTTTGCTGTAAACAGACTAAAGCTGGCAGAAATTTTGTATTATAAAATACTAGAGACTGTAATGGTTCAG
GAAACACGAAGACTTCATGGAATGGACATGTCAGTTCTTTTAGAGCAAGATATATTTCATCGTTCCTTGATGGCT
TGTTGTTTGGAAATTGTGCTCTTTGCCTATAGCTCACCTCGTACTTTTCCTTGGATTATTGAAGTTCTCAACTTG
CAACCATTTTACTTTTATAAGGTTATTGAGGTGGTGATCCGCTCAGAAGAGGGGCTCTCAAGGGACATGGTGAAA
CACCTAAACAGCATTGAAGAACAGATTTTGGAGAGTTTAGCATGGAGTCACGATTCTGCACTGTGGGAGGCTCTC
CAGGTTTCTGCAAACAAAGTTCCTACCTGTGAAGAAGTTATATTCCCAAATAACTTTGAAACAGGAAATGGAGGA
AATGTGCAGGGACATCTTCCCCTGATGCCAATGTCTCCTCTAATGCACCCAAGAGTCAAGGAAGTTCGAACTGAC
AGTGGGAGTCTTCGAAGAGATATGCAACCATTGTCTCCAATTTCTGTCCATGAACGCTACAGTTCTCCTACCGCA
GGGAGTGCTAAGAGAAGACTCTTTGGAGAGGACCCCCCAAAGGAAATGCTTATGGACAAGATCATAACAGAAGGA
ACAAAATTGAAAATCGCTCCTTCTTCAAGCATTACTGCTGAAAATGTATCAATTTTACCTGGTCAAACTCTTCTA
ACAATGGCCACAGCCCCAGTAACAGGAACAACAGGACATAAAGTTACAATTCCATTACATGGTGTCGCAAATGAT
GCTGGAGAGATCACACTGATACCTCTTTCCATGAATACAAATCAGGAGTCCAAAGTCAAGAGTCCTGTATCACTT
ACTGCTCATTCATTAATTGGTGCTTCTCCAAAACAGACCAATCTGACTAAAGCACAAGAGGTACATTCAACTGGA
ATAAACAGGCCAAAGAGAACTGGGTCCTTAGCACTATTTTACAGAAAGGTCTATCATTTGGCAAGTGTACGCTTA
CGTGATCTATGTCTAAAACTGGATGTTTCAAATGAGTTACGAAGGAAGATATGGACGTGTTTTGAATTCACTTTA
GTTCACTGTCCTGATCTAATGAAAGACAGGCATTTGGATCAGCTCCTCCTTTGTGCCTTTTATATCATGGCAAAG
GTAACAAAAGAAGAAAGAACTTTTCAAGAAATTATGAAAAGTTATAGGAATCAGCCCCAAGCTAATAGTCACGTA
TATAGAAGTGTTCTGCTGAAAAGTATTCCAAGAGAAGTTGTGGCATATAATAAAAATATAAATGATGACTTTGAA
ATGATAGATTGTGACTTAGAAGATGCTACAAAAACACCTGACTGTTCCAGTGGACCAGTGAAAGAGGAAAGAGGT
GATCTTATAAAATTTTACAATACAATATATGTAGGAAGAGTGAAGTCATTGCACTGAAATACGACTTGGCGAAT
CAGGACCATATGATGGATGCTCCACCACTCTCTCCTTTTCCACATATTAAACAACAGCCAGGCTCACCACGCCGC
ATTTCCCAGCAGCACTCCATTTATATTTCCCCGCACAAGAATGGGTCAGGCCTTACACCAAGAAGCGCTCTGCTG
TACAAGTTCAATGGCAGCCCTTCTAAGAGTTTGAAAGATATCAACAACATGATAAGGCAAGGTGAGCAGAGAACC
AAGAAGCGAGTAATAGCCATCGATAGTGATGCAGAATCCCCTGCCAAACGCGTCTGTCAAGAAAATGATGACGTT
TTACTGAAACGACTACAGGATGTTGTCAGTGAAAGAGCAAATCAT**TAA**TGTTGTTCTTGTTTCTATGATAAAAGC
ACTTTCAGATTGTTCTGCAGAAAGTTGGAGCTCTGTCCTTCAAACCTTTTAGCCCTATAGATGATAAATATCACT
GGGTTATAAGAAAAAATTGCACAAAAATTATGTGCTTTTTAAAATATTTATCCAAAATGTAGTTGACAGAGATGT
ATTTTGAGTTGGATTGGAAAGGAATATTTTAAGTGCCTTTTAAAAATACTAATAGTCCNNNNNNNNNNNNNNNNNN
NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN

FIGURE 444B

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NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNGGGAATTTTTTTT
AATGTTTGCTCCTTGAGTTTTCAAGATGAAATAAGGAGAAACCCCATAACTTTTTAGCTCTCTTTTAAAAATAAA
TGTCTCCTTCTGTGTTCTGTAATATGAGGATAAATAATCTACTTTTGATAGCATGCTTTGAGATATTTGTATTCT
TAATTTAATATTGAAGGAAGGGGTTGGTTCCCATAGTACCTGGCCAGAGGGTTATATACCATCCTGTCTCTGGCC
CACTGTGGTAATTCCACATCCAGGTACCACCGCCATTCAGAGTTGTCTCACCCCTTCTCGTGCCTTTTCTCTCCT
TGAGCTTTATAAACAGATTTGTACCTGAGCCCCAGTGCTACACTCATCCTTGCTTTCCAGCCCTAAGCCATCTCA
GCCTGATGTCACAACCCAATAAATGGGGCACTTTCTTCTTTTGTAAACTATTATCATTTTGGTTTCTGTGACATT
AACTTAATTATATATGATCGTATTAACTCATGTAGTTCTCAAAATAGGCAGCTGCTTCTGAAGCCAGTAAAATAA
AATTCAGTTAGTTATTAAAAACTAAATTCCTATTAGTAAGGTAACACCATGATTATGTGTGATATACTGTTTTTG
AGATCATAGTTATCAGTCATTCTCAATATCTAATTGAGTCCCTAAGAATATTTTAAACCTTTTAAAAATCACATA
AATATCATCTCATGCCTCATAATTCTAATATATTAATACATCAGTAAAATAGCTGCTTATTACTTCCCACACTT
TGTTCTCAGTATTGTTAGTGCATCATGAGTTCCTGCTAGTGTTTGACCACTGGGTACTCCTGAAGATGTTTTTT
AGTACTAGGGATGCTTTTCAGTATTAGGGATGCTTTTTTCAGTACTAGGGATGTACTAGGGAGTACTGAGTACTC
CTGAAGATGTTTTTCAGTACTAGGGATGCTTTTTTCAGTGTTAGGGATGCTTTTCAGTACTAGGGATGCTTTTTT
CAGTGCTAGGGATGCTTTTCAGTACTAGGGATGCTTTCCAAAATATCACCTCTTTAACGTTTACTTTTTCTAGTG
TGTGTCTGGAATCCAAAGGACATGAATAAGCCACTCATAATTAATTTTGAGAAGTTTTATCAAATGTTTATGTTT
CTAACTGCAAACCTTAATTTTGGAAAGGCACAATGTTTAACTCACCTATGTTTAACCATGGCTAATTTAAAATAG
TCTAAGATTTGGCCGTCACTAATTAGTATTCTCAAGAATTTCATTTTTCAATTTTAAGAAGAAAAGGGATTTTGG
TCACATTTTGCTTGTAAATGAAAATTACATCCTCATTCTTTGTGTAGTATCTACACATTGTTATAAGCCAAAAAA
CAAAGTCTGTCTGGAATCTTTGTACATATTTGTATGTTGCTATAATTGTTATTTTTATCTTCATTATTGTGCAAA
ATATAAATGAGCATTTGTNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNTTCTGGACATGTTTTTATCAGTTTTCAGGACTTG
GTATCAATGTACATAGAATGGCTAATAAAAATTGGAATTGAGATTATTGAAAAAAA
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FIGURE 445

GSAPGREKEVGGRGAQPAGPEGMFEDKPHAEGAAVVAAAGEALQALCQELNLDEGSAAEALDDFTAIRGNYSLEG
EVTHWLACSLYVACRKSIIPTVGKGIMEGNCVSLTRILRSAKLSLIQFFSKMKKWMDMSNLPQEFRERIERLERN
FEVSTVIFKKYEPIFLDIFQNPYEEPPKLPRSRKQRRIPCSVKDLFNFCWTLFVYTKGNFRMIGDDLVNSYHLLL
CCLDLIFANAIMCPNRQDLLNIHHLKVYHLIFILLTLRLLKSHPGIIAVLCELHDGLLVEAKGIKEHYFKPYISK
LFDRKILKGECLLDLSSFTDNSKAVNKEYEEYVLTVVILMRGSFGSRRRRGNGTPRKFTRDTPLGKLTAQANVEY
NLQQHFEKKRSFAPSTPLTGRRYLREKEAVITPVASATQSVSRLQSIVAGLKNAPSDQLINIFESCVRNPVENIM
KILKGIGETFCQHYTQSTDEQPGSHIDFAVNRLKLAEILYYKILETVMVQETRRLHGMDMSVLLEQDIFHRSLMA
CCLEIVLFAYSSPRTFPWIIEVLNLQPFYFYKVIEVVIRSEEGLSRDMVKHLNSIEEQILESLAWSHDSALWEAL
QVSANKVPTCEEVIFPNNFETGNGGNVQGHLPLMPMSPLMHPRVKEVRTDSGSLRRDMQPLSPISVHERYSSPTA
GSAKRRLFGEDPPKEMLMDKIITEGTKLKIAPSSSITAENVSILPGQTLLTMATAPVTGTTGHKVTIPLHGVAND
AGEITLIPLSMNTNQESKVKSPVSLTAHSLIGASPKQTNLTKAQEVHSTGINRPKRTGSLALFYRKVYHLASVRL
RDLCLKLDVSNELRRKIWTCFEFTLVHCPDLMKDRHLDQLLLCAFYIMAKVTKEERTFQEIMKSYRNQPQANSHV
YRSVLLKSIPREVVAYNKNINDDFEMIDCDLEDATKTPDCSSGPVKEERGDLIKFYNTIYVGRVKSFALKYDLAN
QDHMMDAPPLSPFPHIKQQPGSPRRISQQHSIYISPHKNGSGLTPRSALLYKFNGSPSKSLKDINNMIRQGEQRT
KKRVIAIDSDAESPAKRVCQENDDVLLKRLQDVVSERANH

FIGURE 446

GGGGCCAGTCGTTCGCCGGAAAGCATTTGTCTCCCACCTCATCATAACAACAATTAATTTCCTCTGGGGCCTGAG
GAGGGCAGAATTTCAACCTTCGGTGTGCTTGGGAGTGGCGATTGTGATTTACACGACAAAATGCCGAGGTGCTCG
GTGGAGTC**ATG**GCAGTGCCCTTTGTGGAAGACTGGGACTTGGTGCAAACCCTGGGAGAAGGTGCCTATGGAGAAG
TTCAACTTGCTGTGAATAGAGTAACTGAAGAAGCAGTCGCAGTGAAGATTGTAGATATGAAGCGTGCCGTAGACT
GTCCAGAAAATATTAAGAAAGAGATCTGTATCAATAAAATGCTAAATCATGAAAATGTAGTAAAATTCTATGGTC
ACAGGAGAGAAGGCAATATCCAATATTTATTTCTGGAGTACTGTAGTGGAGGAGAGCTTTTTGACAGAATAGAGC
CAGACATAGGCATGCCTGAACCAGATGCTCAGAGATTCTTCCATCAACTCATGGCAGGGGTGGTTTATCTGCATG
GTATTGGAATAACTCACAGGGATATTAAACCAGAAAATCTTCTGTTGGATGAAAGGGATAACCTCAAAATCTCAG
ACTTTGGCTTGGCAACAGTATTTCGGTATAATAATCGTGAGCGTTTGTTGAACAAGATGTGTGGTACTTTACCAT
ATGTTGCTCCAGAACTTCTGAAGAGAAGAGAATTTCATGCAGAACCAGTTGATGTTTGGTCCTGTGGAATAGTAC
TTACTGCAATGCTCGCTGGAGAATTGCCATGGGACCAACCCAGTGACAGCTGTCAGGAGTATTCTGACTGGAAAG
AAAAAAAAACATACCTCAACCCTTGGAAAAAAATCGATTCTGCTCCTCTAGCTCTGCTGCATAAAATCTTAGTTG
AGAATCCATCAGCAAGAATTACCATTCCAGACATCAAAAAGATAGATGGTACAACAAACCCCTCAAGAAAGGGG
CAAAAAGGCCCCGAGTCACTTCAGGTGGTGTGTCAGAGTCTCCCAGTGGATTTTCTAAGCACATTCAATCCAATT
TGGACTTCTCTCCAGTAAACAGTGCTTCTAGTGAAGAAATGTGAAGTACTCCAGTTCTCAGCCAGAACCCCGCA
CAGGTCTTTCCTTATGGGATACCAGCCCCTCATACATTGATAAATTGGTACAAGGGATCAGCTTTTCCCAGCCCA
CATGTCCTGATCATATGCTTTTGAATAGTCAGTTACTTGGCACCCCAGGATCCTCACAGAACCCCTGGCAGCGGT
TGGTCAAAAGAATGACACGATTCTTTACCAAATTGGATGCAGACAAATCTTATCAATGCCTGAAAGAGACTTGTG
AGAAGTTGGGCTATCAATGGAAGAAAGTTGTATGAATCAGGTTACTATATCAACAACTGATAGGAGAAACAATA
AACTCATTTTCAAAGTGAATTTGTTAGAAATGGATGATAAAATATTGGTTGACTTCCGGCTTTCTAAGGGTGATG
GATTGGAGTTCAAGAGACACTTCCTGAAGATTAAAGGGAAGCTGATTGATATTGTGAGCAGCCAGAAGGTTTGGC
TTCCTGCCACA**TGA**TCGGACCATCGGCTCTGGGGAATCCTGGTGAATATAGTGCTGCTATGTTGACATTATTCTT
CCTAGAGAAGATTATCCTGTCCTGCAAACTGCAAATAGTAGTTCCTGAAGTGTTCACTTCCCTGTTTATCCAAAC
ATCTTCCAATTTATTTTGTTTGTTCGGCATACAAATAATACCTATATCTTAATTGTAAGCAAAACTTTGGGGAAA
GGATGAATAGAATTCATTTGATTATTTCTTCATGTGTGTTTAGTATCTGAATTTGAAACTCATCTGGTGGAAACC
AAGTTTCAGGGGACATGAGTTTTCCAGCTTTTATACACGTATCTCATTTTTATCAAAACATTTTGTTTAATTC
AAAAAGTACATATTTCTTCCATGTTGATTTAATTCTAAGATGAACCAATAAAGACATAATTCTTGCAAAAAAAAA
AAAAAAAAAAAAAAAA

FIGURE 447

MAVPFVEDWDLVQTLGEGAYGEVQLAVNRVTEEAVAVKIVDMKRAVDCPENIKKEICINKMLNHENVVKFYGHRR
EGNIQYLFLEYCSGGELFDRIEPDIGMPEPDAQRFFHQLMAGVVYLHGIGITHRDIKPENLLLDERDNLKISDFG
LATVFRYNNRERLLNKMCGTLPYVAPELLKRREFHAEPVDVWSCGIVLTAMLAGELPWDQPSDSCQEYSDWKEKK
TYLNPWKKIDSAPLALLHKILVENPSARITIPDIKKDRWYNKPLKKGAKRPRVTSGGVSESPSGFSKHIQSNLDF
SPVNSASSEENVKYSSSQPEPRTGLSLWDTSPSYIDKLVQGISFSQPTCPDHMLLNSQLLGTPGSSQNPWQRLVK
RMTRFFTKLDADKSYQCLKETCEKLGYQWKKSCMNQVTISTTDRRNNKLIFKVNLLEMDDKILVDFRLSKGDGLE
FKRHFLKIKGKLIDIVSSQKVWLPAT

FIGURE 448

GGGGCCAGTCGTTCGCCGGAAAGCATTTGTCTCCCACCTCATCATAACAACAATTAATTTCCTCTGGGGCCTGAG
GAGGGCAGAATTTCAACCTTCGGTGTGCTTGGGAGTGGCGATTGTGATTTACACGACAAAATGCCGAGGTGCTCG
GTGGAGTC**ATG**GCAGTGCCCTTTGTGGAAGACTGGGACTTGGTGCAAACCCTGGGAGAAGGTGCCTATGGAGAAG
TTCAACTTGCTGTGAATAGAGTAACTGAAGAAGCAGTCGCAGTGAAGATTGTAGATATGAAGCGTGCCGTAGACT
GTCCAGAAAATATTAAGAAAGAGATCTGTATCAATAAAATGCTAAATCATGAAAATGTAGTAAAATTCTATGGTC
ACAGGAGAGAAGGCAATATCCAATATTTATTTCTGGAGTACTGTAGTGGAGGAGAGCTTTTTGACAGAATAGAGC
CAGACATAGGCATGCCTGAACCAGATGCTCAGAGATTCTTCCATCAACTCATGGCAGGGGTGGTTTATCTGCATG
GTATTGGAATAACTCACAGGGATATTAAACCAGAAAATCTTCTGTTGGATGAAAGGGATAACCTCAAAATCTCAG
ACTTTGGCTTGGCAACAGTATTTCGGTATAATAATCGTGAGCGTTTGTTGAACAAGATGTGTGGTACTTTACCAT
ATGTTGCTCCAGAACTTCTGAAGAGAAGAGAATTTCATGCAGAACCAGTTGATGTTTGGTCCTGTGGAATAGTAC
TTACTGCAATGCTCGCTGGAGAATTGCCATGGGACCAACCCAGTGACAGCTGTCAGGAGTATTCTGACTGGAAAG
AAAAAAAAACATACCTCAACCCTTGGAAAAAAATCGATTCTGCTCCTCTAGCTCTGCTGCATAAAATCTTAGTTG
AGAATCCATCAGCAAGAATTACCATTCCAGACATCAAAAAAGATAGATGGTACAACAAACCCCTCAAGAAAGGGG
CAAAAAGGCCCCGAGTCACTTCAGGTGGTGTGTCAGAGTCTCCCAGTGGATTTTCTAAGCACATTCAATCCAATT
TGGACTTCTCTCCAGTAAACAGTGCTTCTAGTGAAGAAATGTGAAGTACTCCAGTTCTCAGCCAGAACCCCGCA
CAGGTCTTTCCTTATGGGATACCAGCCCCTCATACATTGATAAATTGGTACAAGGGATCAGCTTTTCCCAGCCCA
CATGTCCTGATCATATGCTTTTGAATAGTCAGTTACTTGGCACCCCAGGATCCTCACAGAACCCCTGGCAGCGGT
TGGTCAAAAGAATGACACGATTCTTTACCAAATTGGATGCAGACAAATCTTATCAATGCCTGAAAGAGACTTGTG
AGAAGTTGGGCTATCAATGGAAGAAAGTTGTATGAATCAGGTTACTATATCAACAACTGATAGGAGAAACAATA
AACTCATTTTCAAAGTGAATTTGTTAGAAATGGATGATAAAATATTGGTTGACTTCCGGCTTTCTAAGGGTGATG
GATTGGAGTTCAAGAGACACTTCCTGAAGATTAAAGGGAAGCTGATTGATATTGTGAGCAGCCAGAAGGTTTGGC
TTCCTGCCACA**TGA**TCGGACCATCGGCTCTGGGGAATCCTGGTGAATATAGTGCTGCTATGTTGACATTATTCTT
CCTAGAGAAGATTATCCTGTCCTGCAAACTGCAAATAGTAGTTCCTGAAGTGTTCACTTCCCTGTTTATCCAAAC
ATCTTCCAATTTATTTGTTTGTTCGGCATACAAATAATACCTATATCTTAATTGTAAGCAAAACTTTGGGGAAA
GGATGAATAGAATTCATTTGATTATTTCTTCATGTGTGTTTAGTATCTGAATTTGAAACTCATCTGGTGGAAACC
AAGTTTCAGGGGACATGAGTTTTCCAGCTTTTATACACACGTATCTCATTTTTATCAAAACATTTTGTTTAATTC
AAAAAGTACATATTTCTTCCATGTTGATTTAATTCTAAGATGAACCAATAAAGACATAATTCTTGCAAAAAAAAA
AAAAAAAAAAAAAAAAA

FIGURE 449

MAVPFVEDWDLVQTLGEGAYGEVQLAVNRVTEEAVAVKIVDMKRAVDCPENIKKEICINKMLNHENVVKFYGHRR
EGNIQYLFLEYCSGGELFDRIEPDIGMPEPDAQRFFHQLMAGVVYLHGIGITHRDIKPENLLLDERDNLKISDFG
LATVFRYNNRERLLNKMCGTLPYVAPELLKRREFHAEPVDVWSCGIVLTAMLAGELPWDQPSDSCQEYSDWKEKK
TYLNPWKKIDSAPLALLHKILVENPSARITIPDIKKDRWYNKPLKKGAKRPRVTSGGVSESPSGFSKHIQSNLDF
SPVNSASSEENVKYSSSQPEPRTGLSLWDTSPSYIDKLVQGISFSQPTCPDHMLLNSQLLGTPGSSQNPWQRLVK
RMTRFFTKLDADKSYQCLKETCEKLGYQWKKSCMNQVTISTTDRRNNKLIFKVNLLEMDDKILVDFRLSKGDGLE
FKRHFLKIKGKLIDIVSSQKVWLPAT

FIGURE 450

TTTAAGGCGCCGGGTTTCCGGGGCTCCTGGCCCCGCTTATTCCGCGGGGGTCGGCGGGGTCGGCCTGGGCGCCCG
CGCCGCCGCTGCGCTTTGTCCGCTGGGCACACTGCTTCTGGGAGGGGCGGGCAGACATGGTGGCGGCCGCCGCCC
CCTCCTCGGCCCTAGC**ATG**CCGCGGCCGCCTCGCGGCTACCCGGCTTGCCGGTCCCGAGCGGCAGCCCCGGGGTG
GCGATGGGGTCGCGCCGAGGCAGCGGAGGTTCTGCGGGCGACTGGAGGTTGGCAGTGGGCGGGAGAAAGAGGAAG
GCAGGCGCGGCTGGGCCTCGGCCTCTGGCGCCGCGGTACCCTTTGTCTCGGCAGCCTGACGGCCCCGCCGGGCTC
TCCGGAGAGGGGAACGGGCGGCGAGGGTGGCGGGTCCTGGGCGCCCTGTGCTGCGGGGCCGAGAGGCGCTCGGGT
CGCGGCGGGACCGGCCGGACCAGACAGGGTTAATGGAAGAGCCTGGCCAGTCCCGCGCGGGGCCCCCGCAGCGAC
AGCCTTGGCCGCGGGGACTGGAGTCCTGAGGGGGAGAAGCCTGCCGTTC**TGA**AGGCTCGGGACTTCTGCCCCAAA
GACTTCGCCGCCGAGAACTGCGGGTGCACTGCCTCAGGGAAGAAGTTGAGAATTTTGCCAGGTCATCTCTGCCAG
GGCACAGTTCATCACTGTGTGTTTAGTGTGTTTCGGTGAAGCTCTCCAAGTGTGTTGAATCAGCGTGCCTAGCCT
CAAGGGTGCATCGTGAAAACTGAAACCAAAGGAATGATACAGGCCTGCTTTGTGTGTGTCTTCCCACTTTAAGCT
TGTTTTCAGTACAAATACTCTTGCTTTAAACCTGATTGGACTGTGGCGAGCGGACATCTGTTCAAAGGAGGGGCC
GAGACCACAGTACTTCTGAAGGGGGCTTGATAATGTGGAAACATTTTAAGTTTTCTCTCCGGACTGTTTTGCTCT
CTCAATTCAGGCAAGTTACTGAAGTACGTTTTTTATCTAGAAAAAGGTTTGATGTAGTCTGTAAATGGTCCTTGT
AAAGTACATTGCCATCTCAGAATTAAAAGATCCACTCTCATTTATTATGCAGAAGTTAGTGGTCATTCTTTCCTG
TAGATAGTTTATCTCATGTAAAGACCCACCCAGCTTGGTTTAAATTTTTTCTCACTGACGTATAACCATCAGCT
TTGATACTTCCATTTTCAGGCTCAGACTTTGAATTTAAGGAAACTAAAGATGACTTTATTTTCTTTTCTCTTGGT
TTTTTTTTCCAAAAACAAAAAATAAATCCATTACATGTTAACATAGATGATAAGAGTGACATCTTGCATTTTTGC
AAATCTTTTTAATGCCTGGTTTAATAGAAGATTCTCAGATCTACGTCAGACTGTTGTGGTTAGCACACCATGTAA
CCTCTGGAACACTCCACTGTACACTCATACTTTTTT

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FIGURE 451

MPRPPRGYPACRSRAAAPGWRWGRAEAAEVLRATGGWQWAGERGRQARLGLGLWRRGTLCLGSLTAPPGSPERGT
GGEGGGSWAPCAAGPRGARVAAGPAGPDRVNGRAWPVPRGAPAATALAAGTGVLRGRSLPF

FIGURE 452

ATCCTGTTGTGCCTATCACCTGTTGAAGTTGCCAGTCTTAAGGAAGGGATCAATTTCTTTCGCAATAAGAGCACT
GGCAAAGACTACGTCTTGTACAAGAATAAGAGCCGACTGAGGGCATGCAAGAATATGTGCAAGCACCAAGGAGGC
CTGTTCATAAAAGATATCGAGGATTTAGCCGGAAGTTGTTGAA**ATG**GATGAAAACAACGGACTTTTGCTTTTAGA
ACTGAATCCTCCTAACCCTTGGGACTTACAGCCCAGATCTCCTGAAGAGTTGGCTTTTGGAGAAGTACAGATAAC
ATATCTCACTCATGCCTGCATGGACCTCAAGTTAGGAGACAAGAGAATGGTGTTTGACCCTTGGTTAATCGGTCC
TGCTTTTGCCCGTGGATGGTGGTTGCTCCATGAGCCTCCATCTGATTGGCTGGAGAGGCTGTGCCAGGCAGACCT
CGTTTACATCAGTCATCTGCACTCAGACCACCTGAGTTACCCCACACTGAAAAAGCTTGCTGGGAGAAGACCAGA
TATTCCCATTTATGTTGGAAACACAGAAAGGCCTGTATTTTGGAATCTGAATCAGAGCGGTGTCCAGTTGACTAA
TATCAATGTCGTGCCATTTGGAATATGGCAGCAGGTGGACAAAAATCTTCGATTCATGATCTTGATGGATGGTGT
TCATCCTGAGATGGACACTTGCATTATTGTGGAGTACAAAGGTCATAAAATACTCAATACAGTAGACTGCACCAG
ACCCAATGGGGGAAGGCTGCCTATGAAGGTTGCTCTAATGATGAGTGATTTGCTGGAGGAGCATCAGGCTTTCC
AATGACTTTCAGTGGTGGAAAATTTACGGAGGAATGGAAAGCCCAATTCATTAAAACAGAAAGGAAGAAGCTCCT
GAACTACAAGGCTTGGCTGGTGAAGAACCTGCAACCCCGAATTTATTGTCCCTTTGCTGGGTATTTTGTGGAATC
TCACCCATCAGACAAGTACATCAAGGAAACAAACACCAAAAATGACCCAAATGAACTCAACAATCTTATCAAGAA
AAACTCTGATGTGATAACATGGACCCCTCGACCGGGAGCCACCCTTGATCTGGGAAGAATGCTGAAGGATCCAAC
AGACAGCAAGGGCATCATAGAGCCTCCAGAGGGGACAAAAATTTACAAGGATTCCTGGGATTTTGAACCTTATTT
GGAAATCTTGAATGCTGCTCTAGGAGATGAAATATTTCTTCACTCATCCTGGATAAAAGAATACTTCACTTGGGC
TGGATTTAAAGATTACAACCTTGTGGTCAGGATGATTGAGACAGATGAGGACTTCAATCCTTTTCCTGGAGGATA
TGACTATTTGGTTGACTTTTTAGATTTATCCTTCCCAAAAGAAAGACCACAACGAGAACATCCCTATGAGGAAAT
CCATAGCCGGGTGGATGTCATCAGACACGTGGTGAAGAATGGTCTACTCTGGGATGAGTTGTATATAGGATTCCA
AACACGGCTCCAGCGGGATCCTGACATATACCATCACCTGTTTTGGAATCATTTTCAAATAAAACTCCCCCTCAC
ACCACCCAACTGGAAGTCATTCCTGATGTGCTGTGAGCAGAATGGGCCTGCGATTTTGCAAGAATGCAAAACCAC
ATGAAAATTTCAAGAATTCACTGATCTGATGCAAAATAAAAATTTATCATTACATCTTGAACCCAGGAAGCTTAC
AGCAAAGAGACTATGCTTTATGACGTCAGCAATAGATAATTCCACGTTGCCTTTGTGATTTGTATATATAGCTTA
CATTTGTGGACCACTACATAGCCAGATTCAAAAATATTTTACTTGTTCCATCCACAGTTCTCTACAGAAAGAACC
AATGAACCCAATAGGAACAAATTCTCTGTGGAAAACAAAGCATAGCTGTAGTAGATACGAATCCAATCACAGAGG
AAACAGGAAGAGAAAAACATCCAAGACTACAGTGAAAACTGGAAATGGTCTGTTTTCGTGATATTCGTATGATTA
AGATGCAAATTTTTTCTTAGGAAAATGTGATTGTTAACTAGCATTCTGTTTTACATGTTGACATTTCTAACACAC
ACACCACTGATTTGAACTTCAAAATTTATTTTCTGATTATATATGCTAGGTCTGATTCTGAAGATACAAGAATTC
AATGGTGGAATTTGTCTCCTGAAATT

FIGURE 453

MDENNGLLLLELNPPNPWDLQPRSPEELAFGEVQITYLTHACMDLKLGDKRMVFDPWLIGPAFARGWWLLHEPPS
DWLERLCQADLVYISHLHSDHLSYPTLKKLAGRRPDIPIYVGNTERPVFWNLNQSGVQLTNINVVPFGIWQQVDK
NLRFMILMDGVHPEMDTCIIVEYKGHKILNTVDCTRPNGGRLPMKVALMMSDFAGGASGFPMTFSGGKFTEEWKA
QFIKTERKKLLNYKAWLVKNLQPRIYCPFAGYFVESHPSDKYIKETNTKNDPNELNNLIKKNSDVITWTPRPGAT
LDLGRMLKDPTDSKGIIEPPEGTKIYKDSWDFEPYLEILNAALGDEIFLHSSWIKEYFTWAGFKDYNLVVRMIET
DEDFNPFPGGYDYLVDFLDLSFPKERPQREHPYEEIHSRVDVIRHVVKNGLLWDELYIGFQTRLQRDPDIYHHLF
WNHFQIKLPLTPPNWKSFLMCCEQNGPAILQECKTT

FIGURE 454

AGCCGGCCGCTAAGAAGCCGAAAG**ATG**TCCAGGTCGGGCGCGGCGGCTGAGAAGGCGGACTCCAGACAGCGACCC
CAGATGAAGGTAAATGAATATAAAGAAAATCAAAACATCGCTTATGTGTCTCTGAGACCAGCACAGACTACAGTT
TTAATAAAAACAGCTAAGGTCTATCTTGCCCCCTTTTCACTCAGTAATTACCAGCTAGACCAGCTTATGTGCCCC
AAATCCCTATCAGAAAGAATTCTAACAATGAAGTGGCGTGTAAGAAGACTAAAATAAAGAAAACTTGCAGAAGG
ATTATACCTCCAAAGATGAAAAACACATCTTCCAAGGCAGAATCCACGCTGCAAAATTCATCCTCAGCTGTTCAT
ACTGAAAGTAACAAGCTACAACCCAAGAGAACGGCAGATGCGATGAATCTCAGTGTTGATGTGGAAAGTAGTCAG
GATGGAGACAGTGATGAAGATACCACACCAGCCCTGGATTTTTCGGGATTGTCACCCTACGAAAGGAAGAGACTG
AAGAACATATCAGAAACGCAGACTTTTTTGCTTCTCTTCAGTTGTCTGAGTCTGCTGCAAGACTCCGTGAAATG
ATAGAAGAGACAGCCTCCTAAATCCAAAAGAAAGAAGCCTAAGAGAGAAAATGGGATTGGATGTAGAAGGTCA
ATGCGATTACTAAAAGTTGATCCTTCGGGAGTTTCATTACCAGCAGCTCCAACACCGCCGACATTAGTAGCAGAT
GAAACTCCTTTGTTACCTCCTGGGCCTTTAGAAATGACTTCTGAAAATCAAGAAGACAACAATGAACGATTTAAA
GGATTTCTGCACACATGGGCAGGAATGAGCAAGCCAAGTAGTAAGAACACTGAGAAGGGATTATCTAGCATTAAA
AGCTACAAAGCCAATTTAAATGGCATGGTCATTAGTGAAGATACCGTTTACAAAGTTACCACAGGCCCAATATTC
TCTATGGCTCTCCATCCATCAGAAACTAGAACTTTGGTAGCAGTTGGGGCCAAATTTGGGCAAGTTGGACTTTGT
GATTTGACCCAGCAACCTAAAGAAGATGGAGTTTATGTTTTCACCCCCATAGTCAGCCAGTTAGCTGTCTTTAC
TTCTCACCCGCCAATCCGGCCCACATACTGTCACTGAGCTATGATGGCACGTTACGCTGTGGGGATTTTTCCAGG
GCTATTTTTGAAGAGGTGTATAGAAATGAAAGAAGTAGCTTTTCCTCCTTCGACTTCTTGGCAGAAGATGCCTCC
ACTTTAATAGTAGGACACTGGGATGGAAATATGTCACTGGTGGATAGACGGACACCTGGAACTTCTTATGAGAAA
CTTACCAGTTCTTCTATGGGAAAAATAAGAACTGTTCATGTCCACCCAGTGCATAGACAGTATTTTATCACTGCC
GGATTGAGGGATACTCATATTTATGATGCAAGGCGATTGAATTCCAGGAGAAGTCAGCCTTTGATTTCTTTGACT
GAACATACAAAGAGCATTGCTTCCGCCTATTTTTCACCTCTTACTGGTAACAGAGTGGTGACCACATGTGCTGAT
TGTAATCTGAGAATTTTTGACAGCAGCTGTATATCTTCTAAGATTCCGCTCCTCACCACCATCAGGCACAACACT
TTCACTGGGCGATGGCTGACCAGGTTCCAAGCCATGTGGGATCCTAAACAAGAAGACTGTGTCATAGTTGGCAGC
ATGGCCCATCCACGACGGGTAGAAATCTTCCATGAGACAGGAAAGAGGGTGCATTCGTTGGTGGAGAATACCTT
GTCTCTGTGTGTTCCATCAATGCCATGCACCCAACTCGGTATATTTTGGCTGGAGGTAATTCCAGCGGGAAGATA
CATGTTTTTATGAATGAAAAAAGCTGC**TGA**GTTTTTGGTTTAGGAACATCAATTTGTTCAAATTGACCACTGTCT
AAGGAGCCTAGTAATCGGCGTGCCTTAGTGTGTTTATGTGGTAATGTGTTACATTTAGCAATTATAACATTGTTT
TATTAATAAGACTATAAGAAGAGTGTACTTTTAGTAAGGGAGAAGTCTTGGAGGGTTGCTTCTGCAGGACGGGGA
GGGAATTTGAGGGGAGGCTGAGGTGCCGTCAGGACTTTTTTTTTTTTTTTTTTTGAGATGGAGTTTTGCTCTT
GTTGCCCAGGCTGGAGTGCAATAGCGCGATCTTGGCTCACCGCAACCTCCGCCTCCCAGGTTCAAGCGATTCTCC
TGCCTCAGACTCCTAAGTAGCTGGGATTACAGGCACCTGCCACCACGCCTGGCTATTTTTTGTATTTTTAGTAG
AGATGGGGTTTCATCATGTTGGCCAGGCTGGTCTCGAGCTCCTGACCTCAGGTGATCTGCCCGCCTCGGCCTCCA
AAAGTGCTGGAATTACAGGCGTGAGCCACCATGCCTGGCCATCAGAACTTGTAATCAAGACAGTATGTTGAGAAA
TTCTAACATTATAAATTACAAAGCTTTGACTATTAAAGTTTTTGTGATCT

FIGURE 455

MSRSGAAAEKADSRQRPQMKVNEYKENQNIAYVSLRPAQTTVLIKTAKVYLAPFSLSNYQLDQLMCPKSLSEKNS
NNEVACKKTKIKKTCRRIIPPKMKNTSSKAESTLQNSSSAVHTESNKLQPKRTADAMNLSVDVESSQDGDSDEDT
TPALDFSGLSPYERKRLKNISENADFFASLQLSESAARLREMIEKRQPPKSKRKKPKRENGIGCRRSMRLLKVDP
SGVSLPAAPTPPTLVADETPLLPPGPLEMTSENQEDNNERFKGFLHTWAGMSKPSSKNTEKGLSSIKSYKANLNG
MVISEDTVYKVTTGPIFSMALHPSETRTLVAVGAKFGQVGLCDLTQQPKEDGVYVFHPHSQPVSCLYFSPANPAH
ILSLSYDGTLRCGDFSRAIFEEVYRNERSSFSSFDFLAEDASTLIVGHWDGNMSLVDRRTPGTSYEKLTSSSMGK
IRTVHVHPVHRQYFITAGLRDTHIYDARRLNSRRSQPLISLTEHTKSIASAYFSPLTGNRVVTTCADCNLRIFDS
SCISSKIPLLTTIRHNTFTGRWLTRFQAMWDPKQEDCVIVGSMAHPRRVEIFHETGKRVHSFGGEYLVSVCSINA
MHPTRYILAGGNSSGKIHVFMNEKSC

FIGURE 456

TGGCGGCCGCCGGCGTCGCCGCC**ATG**GACCTAGGACCCTTGAACATCTGTGAAGAAATGACTATTCTGCATGGAG
GCTTCTTGCTGGCCGAGCAGCTGTTCCACCCTAAGGCACTGGCAGAATTAACAAAGTCTGACTGGGAACGTGTTG
GACGGCCCATCGTGGAGGCCTTAAGGGAGATCTCCTCGGCTGCAGCACACTCCCAGCCCTTTGCCTGGAAGAAGA
AAGCCCTGATCATCATCTGGGCCAAGGTTCTGCAGCCGCACCCCGTGACCCCGTCCGACACAGAGACACGGTGGC
AGGAAGACCTGTTCTTCTCGGTGGGCAACATGATCCCCACCATCAACCACACCATCCTCTTCGAGCTGCTCAAAT
CCCTGGAAGCTTCTGGACTCTTTATCCAGCTCCTGATGGCCCTGCCCACCACCATCTGCCATGCAGAACTAGAGC
GCTTTCTGGAACATGTGACCGTTGACACTTCTGCCGAAGACGTGGCCTTCTTCCTGGACATCTGGTGGGAGGTGA
TGAAGCACAAGGGTCACCCGCAGGACCCCCTGCTCTCCCAGTTTAGTGCAATGGCCCATAAGTACCTGCCTGCCT
TAGATGAGTTCCCCCATCCTCCAAAGAGGCTTAGGTCAGACCCAGACGCGTGCCCCACCATGCCCCTGTTGGCCA
TGCTGCTCCGCGGGCTGACACAGATCCAGAGTCGGATCCTGGGCCCGGGGAGGAAGTGCTGTGCGCTGGCCAACC
TGGCTGACATGCTGACTGTGTTTGCGCTGACAGAGGACGACCCCCAGGAGGTGTCTGCAACCGTGTATCTGGACA
AACTGGCCACGGTGATCTCTGTGTGGAACTCGGACACCCAGAATCCCTACCACCAGCAGGCGCTGGCAGAGAAGG
TGAAGGAGGCAGAACGGGATGTCAGCCTGACCTCGCTGGCCAAACTCCCCAGTGAGACCATTTTCGTGGGCTGCG
AGTTCCTGCACCACCTGCTGCGGGAGTGGGGGGAGGAGTTGCAGGCCGTGCTCCGCAGCAGCCAGGGGACAAGTT
ACGACAGCTACCGGCTGTGCGACAGTCTGACTTCCTTCAGCCAGAACGCGACGCTCTACCTGAACCGCACCAGCC
TGTCCAAGGAGGACAGGCAGGTGGTCTCTGAGCTGGCGGAGTGTGTCAGGGACTTCCTGAGGAAAACGAGCACGG
TGCTGAAGAACAGGGCCTTGGAGGATATCACAGCTTCCATTGCCATGGCCGTCATCCAGCAGAAGATGGACCGCC
ATATGGAAGTGTGCTACATTTTTGCCTCTGAGAAGAAGTGGGCCTTCTCGGACGAGTGGGTAGCCTGCCTGGGGA
GTAACAGGGCCCTCTTCCGAGAGCCAGACTTGGTGTTGAGGCTGCTGGAAACAGTGATAGACGTCAGCACAGCTG
ACAGAGCCATCCCTGAGTCTCAGATCCGGCAGGTGATCCACCTGATCCTGGAATGTTACGCAGACCTCTCCCTGC
CAGGTAAAAATAAAGTCCTTGCAGGTATCCTGCGTTCCTGGGGGCGAAAGGGCCTCTCTGAAAAGTTGCTGGCTT
ATGTGGAGGGTTTTCAGGAAGACCTCAATACAACTTTTAACCAGCTCACTCAGAGTGCCTCCGAACAGGGCTTGG
CAAAAGCTGTGGCCTCCGTGGCCCGCCTGGTCATAGTGCACCCGGAAGTCACGGTGAAGAAAATGTGCAGCCTGG
CTGTGGTCAATCTCGGCACCCACAAGTTCCTGGCCCAGATTCTCACTGCCTTCCCTGCCCTTAGGTTTGTGGAAG
TGCAGGGTCCCAATTCATCTGCCACTTTCATGGTGTCATGCCTCAAAGAAACCGTCTGGATGAAGTTCTCTACAC
CCAAGGAAGAAAAGCAATTTTTAGAGCTCCTGAACTGCCTGATGAGTCCCGTGAAACCCCAAGGGATTCCAGTGG
CTGCTCTTCTTGAGCCAGACGAGGTGCTGAAGGAATTTGTCCTGCCTTTCTTGAGGTTAGATGTTGAAGAGGTAG
ACCTCAGTCTGAGGATCTTCATCCAGACTCTAGAGGCAAACGCGTGCCGAGAGGAATACTGGCTCCAGACCTGCT
CCCCGTTTCCACTCCTCTTCAGCTTGTGCCAGCTCTTGGACCGCTTTAGCAAATACTGGCCGCTTCCCAAGGAGA
AGCGGTGCCTCTCTTTGGATAGGAAGGATCTAGCGATCCATATCCTGGAGCTCCTGTGTGAGATTGTATCAGCCA
ATGCTGAGACCTTCTCCCCGGATGTCTGGATCAAGTCCCTGTCCTGGCTCCACCGCAAGTTAGAACAGCTAGACT
GGACTGTGGGCCTGAGGCTGAAGAGCTTCTTCGAGGGGCACTTCAAGTGTGAAGTGCCAGCCACACTTTTTGAGA
TCTGTAAGCTTTCAGAAGACGAGTGGACCTCCCAGGCCCACCCAGGGTACGGGGCTGGCACGGGGCTCCTGGCCT
GGATGGAGTGCTGCTGCGTCTCCAGCGGCATCTCGGAGAGGATGCTGTCTCTCTTGGTGGTGGACGTGGGCAATC
CTGAGGAGGTCAGACTGTTCAGCAAAGGCTTTCTGGTGGCCCTGGTGCAAGTCATGCCTTGGTGCAGCCCTCAGG
AGTGGCAGCGCCTTCACCAGCTGACCAGGAGACTGCTGGAGAAGCAGCTCCTCCATGTCCCTTATAGCCTGGAAT
ATATTCAGTTTGTTCCCCTGCTCAACCTGAAGCCCTTTGCCCAGGAGTTGCAACTCTCCGTCCTCTTCCTGAGGA
CTTTCCAGTTTCTCTGCAGCCATAGCTGTCGTAATTGGCTTCCTCTGGAAGGCTGGAACCACGTGGTCAAACTCC
TCTGTGGCAGTCTGACCCGCCTCCTGGACTCAGTCAGGGCGATACAGGCAGCTGGCCCTTGGGTTCAAGGACCAG
AGCAGGACCTGACCCAGGAAGCCCTGTTTGTTTACACCCAGGTGTTCTGCCATGCTCTGCACATCATGGCCATGC
TCCACCCGGAGGTCTGTGAGCCACTCTACGTTTTAGCCTTGGAAACCCTCACCTGCTATGAGACTTTGAGCAAGA
CCAACCCTTCTGTCAGCTCCTTGCTCCAGAGGGCACACGAGCAGCGCTTCTTAAAGTCCATTGCTGAGGGCATTG
GCCCTGAAGAACGGCGCCAAACCCTGTTGCAGAAGATGAGCAGCTTC**TGA**CTTGGCGTGGGGAGCTGGGCCCCAA
CATGGCGGGTCTGCAGAAGATCAGCAGCTTCTTACCTGTGCGGGAGCGAAAAGCTGGGCTTCAACATGGCAGGT
CTGTAGGGGTCAGACCCGAGCAGCCTGGACTTTACAGTTATGTGAAACTGTCCACAAAAAGTCATGGCAATAATG
GTGTAAAGAAAATAGTTTCTTGGGTATTTGTAACGTACAAACTATCATAAAAATTCTCCTCTTTCGCATCTCAAA
AAAAAAAAAAAAAAAAAAAAA

FIGURE 457

MDLGPLNICEEMTILHGGFLLAEQLFHPKALAELTKSDWERVGRPIVEALREISSAAAHSQPFAWKKKALIIIWA
KVLQPHPVTPSDTETRWQEDLFFSVGNMIPTINHTILFELLKSLEASGLFIQLLMALPTTICHAELERFLEHVTV
DTSAEDVAFFLDIWWEVMKHKGHPQDPLLSQFSAMAHKYLPALDEFPHPPKRLRSDPDACPTMPLLAMLLRGLTQ
IQSRILGPGRKCCALANLADMLTVFALTEDDPQEVSATVYLDKLATVISVWNSDTQNPYHQQALAEKVKEAERDV
SLTSLAKLPSETIFVGCEFLHHLLREWGEELQAVLRSSQGTSYDSYRLCDSLTSFSQNATLYLNRTSLSKEDRQV
VSELAECVRDFLRKTSTVLKNRALEDITASIAMAVIQQKMDRHMEVCYIFASEKKWAFSDEWVACLGSNRALFRE
PDLVLRLLETVIDVSTADRAIPESQIRQVIHLILECYADLSLPGKNKVLAGILRSWGRKGLSEKLLAYVEGFQED
LNTTFNQLTQSASEQGLAKAVASVARLVIVHPEVTVKKMCSLAVVNLGTHKFLAQILTAFPALRFVEVQGPNSSA
TFMVSCLKETVWMKFSTPKEEKQFLELLNCLMSPVKPQGIPVAALLEPDEVLKEFVLPFLRLDVEEVDLSLRIFI
QTLEANACREEYWLQTCSPFPLLFSLCQLLDRFSKYWPLPKEKRCLSLDRKDLAIHILELLCEIVSANAETFSPD
VWIKSLSWLHRKLEQLDWTVGLRLKSFFEGHFKCEVPATLFEICKLSEDEWTSQAHPGYGAGTGLLAWMECCCVS
SGISERMLSLLVVDVGNPEEVRLFSKGFLVALVQVMPWCSPQEWQRLHQLTRRLLEKQLLHVPYSLEYIQFVPLL
NLKPFAQELQLSVLFLRTFQFLCSHSCRNWLPLEGWNHVVKLLCGSLTRLLDSVRAIQAAGPWVQGPEQDLTQEA
LFVYTQVFCHALHIMAMLHPEVCEPLYVLALETLTCYETLSKTNPSVSSLLQRAHEQRFLKSIAEGIGPEERRQT
LLQKMSSF

FIGURE 458

CGACGCGGGAGCCGCACGCGCCGGACGAGGCTCGCTGCGCTCCCTGTTGCCCAGCGCGGGCCCGTTGAGGCGGAG
CCCTCAGTTCCCGGCCAGGACACGGTCTGGGCCGCCGAATCTCCGGCCGAAGAGCGGCGGCGGCAGCGGCGGGAA
AAAA**ATG**AAGAATGAAATTGCTGCCGTTGTCTTCTTTTTCACAAGGCTAGTTCGAAAACATGATAAGTTGAAAAA
AGAGGCAGTTGAGAGGTTTGCTGAGAAATTGACCCTAATACTTCAAGAAAAATATAAAAATCACTGGTATCCAGA
AAAACCATCGAAAGGACAGGCCTACAGATGTATTCGTGTCAATAAATTTCAGAGAGTTGATCCTGATGTCCTGAA
AGCCTGTGAAAACAGCTGCATCTTGTATAGTGACCTGGGCTTGCCAAAGGAGCTCACTCTCTGGGTGGACCCATG
TGAGGTGTGCTGTCGTAGAGATGGGGTTTCACCATGTTGGCCAGACTGCTCTCAAACTCCTGACCTCGTGATCCG
CCCGCCTTGGCCTCCCAAAGCGCTGGATTACAGGCGTGAGCCACTGCGCCCGGCCTCCTCCTTTTTGATTATGTA
TGGAGAGAAAAACAATGCATTCATTGTTGCCAGCTTTGAAAATAAAGATGAGAACAAGGATGAGATCTCCAGGAA
AGTTACCAGGGCCCTTGATAAGGTTACCTCTGATTATCATTCAGGATCCTCTTCTTCAGATGAAGAAACAAGTAA
GGAAATGGAAGTGAAACCCAGTTCGGTGACTGCAGCCGCAAGTCCTGTGTACCAGATTTCAGAACTTATATTTCC
ACCTCTTCCAATGTGGCACCCTTTGCCCAGAAAAAAGCCAGGAATGTATCGAGGGAATGGCCATCAGAATCACTA
TCCTCCTCCTGTTCCATTTGGTTATCCAAATCAGGGAAGAAAAAATAAACCATATCGCCCAATTCCAGTGACATG
GGTACCTCCTCCTGGAATGCATTGTGACCGGAATCACTGGATTAATCCTCACATGTTAGCACCTCAC**TAA**CTTCG
TTTTTGATTGTGTTGGTGTCATGTTGAGAAAAAGGTAGAATAAACCTTACTACACATTAAAAGTTAAAAGTTCTT
ACTAATAGTAGTGAAGTTAGATGGGCCAAACCATCAAACTTATTTTTATAGAAGTTATTGAGAATAATCTTTCTT
AAAAAATATATGCACTTTAGATATTGATATAGTTTGAGAAATTTTATTAAAGTTAGTCAAGTGCCTAAGTTTTTA
ATATTGGACTTGAGTATTTATATATTGTGCATCAACTCTGTTGGATACGAGAACCCTGTAGAAGTGGACGATTTG
TTTTAGCCCCTTTGAGAATTTACTTTATGGAGCGTATGTAAGTTATTTATATACAAGGAAATCTATTTTATGTCG
TTGTTTAAGAGAATTGTGTGAAATCATGTAGTTGCAAATAAAAAATAGTTTGAGGCAAAAAAAAAAAAAAAAAAA
AAAAAAAAAA

FIGURE 459

MKNEIAAVVFFFTRLVRKHDKLKKEAVERFAEKLTLILQEKYKNHWYPEKPSKGQAYRCIRVNKFQRVDPDVLKA
CENSCILYSDLGLPKELTLWVDPCEVCCRRDGVSPCWPDCSQTPDLVIRPPWPPKALDYRREPLRPASSFLIMYG
EKNNAFIVASFENKDENKDEISRKVTRALDKVTSDYHSGSSSSDEETSKEMEVKPSSVTAAASPVYQISELIFPP
LPMWHPLPRKKPGMYRGNGHQNHYPPPVPFGYPNQGRKNKPYRPIPVTWVPPPGMHCDRNHWINPHMLAPH

FIGURE 460

CAGGCCAGGACTCCACAAGGCTGGTCCCCTGCCCTGGAGCAACTTAAACAGGCCCTCTGGCCAGCCTGGAACCCT
GAG**ATG**GCCTCCAGCTCAGGCAGCAGTCCTCGCCCGGCCCCTGATGAGAATGAGTTTCCCTTTGGGTGCCCTCCC
ACCGTCTGCCAGGACCCAAAGGAGCCCAGGGCTCTCTGCTGTGCAGGCTGTCTCTCTGAGAACCCGAGGAATGGC
GAGGATCAGATCTGCCCCAAATGCAGAGGGGAAGACCTCCAGTCTATAAGCCCAGGAAGCCGTCTTCGAACTCAG
GAGAAGGCTCACCCCGAGGTGGCTGAGGCTGGAATTGGGTGCCCCTTTGCAGGTGTCGGCTGCTCCTTCAAGGGA
AGCCCACAGTCTGTGCAAGAGCATGAGGTCACCTCCCAGACCTCCCACCTAAACCTGCTGTTGGGGTTCATGAAA
CAGTGGAAGGCCCGGCTGGGCTGTGGCCTGGAGTCTGGGCCCATGGCCCTGGAGCAGAACCTGTCAGACCTGCAG
CTGCAGGCAGCCGTGGAAGTGGCGGGGGACCTGGAGGTCGATTGCTACCGGGCACCCTGCTCCGAGAGCCAGGAG
GAGCTGGCCCTGCAGCACTTCATGAAGGAGAAGCTTCTGGCTGAGCTGGAGGGGAAGCTGCGTGTGTTTGAGAAC
ATTGTTGCTGTCCTCAACAAGGAGGTGGAGGCCTCCCACCTGGCCCTGGCCACCTCTATCCACCAGAGCCAGCTG
GACCGTGAGCGCATCCTGAGCTTGGAGCAGAGGGTGGTGGAGCTTCAGCAGACCCTGGCCCAGAAAGACCAGGCC
CTGGGCAAGCTGGAGCAGAGCTTGCGCCTCATGGAGGAGGCCTCCTTCGATGGCACTTTCCTGTGGAAGATCACC
AATGTCACCAGGCGGTGCCATGAGTCGGCCTGTGGCAGGACCGTCAGCCTCTTCTCCCCAGCCTTCTACACTGCC
AAGTATGGCTACAAGTTGTGCCTGCGGCTGTACCTGAATGGAGATGGCACTGGAAAGAGAACCCATCTGTCGCTC
TTCATCGTGATCATGAGAGGGGAGTATGATGCGCTGCTGCCGTGGCCTTTCCGGAACAAGGTCACCTTCATGCTG
CTGGACCAGAACAACCGTGAGCACGCCATTGACGCCTTCCGGCCTGACCTAAGCTCAGCGTCCTTCCAGAGGCCC
CAGAGTGAAACCAACGTGGCCAGTGGATGCCCACTCTTCTTCCCCCTCAGCAAACTGCAGTCACCCAAGCACGCC
TACGTGAAGGACGACACAATGTTCCTCAAGTGCATTGTGGAGACCAGCACT**TAG**GGTGGGCGGGGCTCCTGAGGG
AGCTCCAACTCAGAAGGGAGCTAGCCAGAGGACTGTGATGCCCTGCCCTTGGCACCCAAGACCTCAGGGCACAAA
GATGGGTGAAGGCTGGCATGATCCAAGCAAGACTGAGGGGTCGACTTCGGGCTGGCCATCTGGTTAGGATGGCAG
GACGTGGGCTGGGCCCACAAAGGCAAAGGGTCCAGAAGGAGACAGGCAGAGCTGCTCCCCTCTGCACGGACCATG
CGACACTGGGAGGCCAGTGAGCCACTCCGGCCCCGAATGTTGAGGTGGACTCTCACCAAATGAGAAGAAAATGGA
ACCAGGCTTGGAACCGTAGGACCCAAGCAGAGAAGCTCTCGGGCTAGGAAGATCTCTGCAGGGCCGCCAGGGAGA
CCTGGACACAGGCCTGCTCTCTTTTTCTCCAGGGTCAGAAACAGGACCGGGTGGAAGGGATGGGGTGCCAGTTTG
AATGCAGTCTGTCCAGGCTCGTCATTGGAGGTGAACAAGCAAACCCAGAGGGCTCCACTAGGACTTCAAATTGGG
GGTTGGATTTGAAGACTTTTAAGTTTCCTTCCAGCCCAGAAAGTCTCTCATTCTAGGCCTCCTGGCCCAGGTGAG
TCCTAGAGCTACAGGGGTTCTGGAAACATTCAGGAGCTTCCTGTCCTCCCAGCTCCTCACTCACCTTCAGTAACC
CCCACTGGACTGACCTGGTCCACAGGGCACCTGCCACCCTGGGCCTGGCAGCTCAGCTTCCCCAACACGCAGGAG
CACACCCAGCCCCCACATCCTGTGCCTCCATCAGCTAAACACCACGTCACTTCATGCAGGTGAAACCCAGTCACT
GTGAGCTCCCAGGTGCAGCCAGAGGCACCTCAAGAAGAAGAGGGGCATAAACTTTCCTCTTCCTGCCTAGAGGCC
CCACCTTTGGTGCTTTCCAGAATCCCGTAACACCTGATTAACTGAGGCATCCACTTCTTTCAGCAGACTGATCAG
GACCTCCAAGCCACTGAGCAATGTATAACCCCAAAGAAATAATTTTTAGAATCTCTTTCGAAGTTTTCCTAAAAA
AAAAAAAAAAA

FIGURE 461

MASSSGSSPRPAPDENEFPFGCPPTVCQDPKEPRALCCAGCLSENPRNGEDQICPKCRGEDLQSISPGSRLRTQE
KAHPEVAEAGIGCPFAGVGCSFKGSPQSVQEHEVTSQTSHLNLLLGFMKQWKARLGCGLESGPMALEQNLSDLQL
QAAVEVAGDLEVDCYRAPCSESQEELALQHFMKEKLLAELEGKLRVFENIVAVLNKEVEASHLALATSIHQSQLD
RERILSLEQRVVELQQTLAQKDQALGKLEQSLRLMEEASFDGTFLWKITNVTRRCHESACGRTVSLFSPAFYTAK
YGYKLCLRLYLNGDGTGKRTHLSLFIVIMRGEYDALLPWPFRNKVTFMLLDQNNREHAIDAFRPDLSSASFQRPQ
SETNVASGCPLFFPLSKLQSPKHAYVKDDTMFLKCIVETST

FIGURE 462

AGACGCAAGACGCCGGGCCTACAGCGGGAGCGTGAGGAAAGCCGTGCGTTGCGTTCCAAGGCATCTGTGAGCCCG
CGGAGTATACACC**ATG**AGCAAAGCTCACCCTCCCGAGTTGAAAAAATTTATGGACAAGAAGTTATCATTGAAATT
AAATGGTGGCAGACATGTCCAAGGAATATTGCGGGGATTTGATCCCTTTATGAACCTTGTGATAGATGAATGTGT
GGAGATGGCGACTAGTGGACAACAGAACAATATTGGAATGGTGGTAATACGAGGAAATAGTATCATCATGTTAGA
AGCCTTGGAACGAGTA**TAA**ATAATGGCTGTTCAGCAGAGAAACCCATGTCCTCTCTCCATAGGGCCTGTTTTACT
ATGATGTAAAAATTAGGTCATGTACATTTTCATATTAGACTTTTTGTTAAATAAACTTTTGTAATAGTCAAAAAT
GCTTTCTCAGATGTTCTGAATATAGAATATCAGCTCTCATTCCAGTTTTTTCTAACATGAATTTTCCTGGTTGAC
ATTGATTTCAAAGGGTTTTATGCATTAAAGTGAAAGAATCTTATTAAATGCGAAAAAAAAAAAAAAAAAAAAAAA
AAAAAA

FIGURE 463

MSKAHPPELKKFMDKKLSLKLNGGRHVQGILRGFDPFMNLVIDECVEMATSGQQNNIGMVVIRGNSIIMLEALER
V

FIGURE 464

CGGGAGGCGGCAGCGGCTGCAGCGTTGGTAGCATCAGCATCAGCATCAGCGGCAGCGGCAGCGGCCTCGGGCGGG
GCCGGCCGGACGGACAGGCGGACAGAAGGCGCCAGGGGCGCGCGTCCCGCCCGGGCCGGCC**ATG**GAGGGCGCCTC
CTTCGGCGCGGGCCGCGCAGGGGCCGCCCTGGACCCCGTGAGCTTTGCGCGGCGGCCCCAGACCCTGCTCCGGGT
CGCGTCCTGGGTGTTCTCCATCGCCGTCTTCGGGCCCATCGTCAACGAGGGCTACGTGAACACCGACAGCGGCCC
CGAGCTGCGCTGCGTGTTCAACGGGAACGCGGGCGCCTGCCGCTTCGGCGTCGCGCTGGGCCTCGGAGCCTTCCT
CGCCTGCGCCGCCTTCCTGCTGCTCGATGTGCGCTTCCAGCAAATCAGCAGCGTCCGCGACCGCCGGCGCGCGGT
GTTGCTGGACCTGGGCTTCTCAGGACTCTGGTCCTTCCTGTGGTTCGTGGGCTTCTGCTTCCTCACCAATCAGTG
GCAGCGCACGGCGCCAGGGCCGGCCACGACGCAGGCGGGGGACGCGGCGCGGGCCGCCATCGCCTTCAGCTTCTT
CTCCATCCTCAGCTGGGTGGCGCTCACCGTGAAGGCCCTGCAGCGGTTCCGCCTGGGCACCGACATGTCACTCTT
CGCCACCGAACAGCTGAGCACCGGGGCGAGCCAGGCCTACCCCGGCTATCCGGTGGGCAGCGGCGTGGAGGGCAC
CGAGACCTACCAGAGCCCGCCCTTCACCGAGACCCTGGACACCAGCCCCAAAGGGTACCAGGTGCCCGCCTAC**TA
G**CGGCTGGCAGGCACAGACCAGGGCTCCAAGGCCACCCCACCAACGCAGGCCCCAGGGTCTCCGGGACCTCCCTT
GGGTCCTTCCAGCTCAGTGCCGCGGACAGAGTAGGTGGCCGCTTTGCGCCATCCGGGGCCAAGAGGGGGTGGACC
CGCGTGTCTGGGCTGCCCCTGCCAAGTTCCCCCAGTCCCTCAGCACCTGGCCCCAGGACTGAGGTCCTGAGAAGG
GGATAGCACTGCCCAGGACGTGTGTCCCTAGCCTGGAATGGACTGGCCTGGGGAAGGCTTTCCCCTCTTGGGCCA
CACCTGCTCACTCTGGGGTTGGGGGTCCAGCTGCCCTCTACGATCAGGTGCAGGGGCTGCCCAGGACAAAGCGGG
GGCAGGGGAAAGACACCACCCTCGCCCCAAGACTGGGGATCCTGGCCACTGTTCCCATCCCATGTCCCTGTGGGT
AGTGACTGTCTCGTTTCTGTCATGGTGGTGCGTCCCGTCCGGAGCCACTCTCCACTTTCTCTCACAGGCTGCTAG
AACAGCCCAGCCCTGTCAGTGTTGTGATCATGGTCCAGTCTTCGGGTTTCACCTCCTAGTACTCCACAAGCTGCT
CCTCTCTCTGTGGCCCCGGCCCCTGCCCAGGTGTGGGTGGTTCTGGCCAGGAAGGCACAAGGTAGCTGTGGGCCA
AGACACCAGCCCTGTCCTAGCCCTTCAGTAAGACCTTGCCAGGAGAGGAGAAGGATGCCTGGGTGCCAGGCAAGA
CAAGCCCCTCAGCAGGAGAGAGGCCCAGAGGCTCCAGCTGGCCACCGTGCCCCACAAGATGGCCCTGTGTGGTT
CCCTTTACCTTGGCTTCCTGGCCCAGTCCCTGCCTCTCCACCTGCACCCTGCTTCCTGGCCCAGTCCCAGGTTGG
AGTCCCTCTGCATAGCTGACTACTCATGCATTGCTCAAAGCTGGCTTTTCACATTAAGTCAACACCAAACGTGGT
TGCCACATTTCATCAGACAGACACCTCCCTCTGGAGATGCAGTTGAGTGACAACCTTGTTACATTGTAGCCTAGA
CCAATTCTGTGTGGATATTTAAGTGAACATGTTTACAATTTTTGTATATATCACTCTCTCCCTCTCCTGAAAGAC
CAGAGATTGTGTATTTTCAGTGTCCCATGTTCCGACTGCACCTTCTTTACAATAAAGACTGTAACTGAGCTGACT
GTGAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 465

MEGASFGAGRAGAALDPVSFARRPQTLLRVASWVFSIAVFGPIVNEGYVNTDSGPELRCVFNGNAGACRFGVALG
LGAFLACAAFLLLDVRFQQISSVRDRRRAVLLDLGFSGLWSFLWFVGFCFLTNQWQRTAPGPATTQAGDAARAAI
AFSFFSILSWVALTVKALQRFRLGTDMSLFATEQLSTGASQAYPGYPVGSGVEGTETYQSPPFTETLDTSPKGYQ
VPAY

FIGURE 466

ATACGACTACACCTGCTCCGGAGCCCGCGGCGGTACCTGCAGCGGAGGAGCTCTGTCTTCCCCTTCATCTCACGC
GAGCCCGGCGTCCCGCCGCGTGCGCCCCGGCGCAGCCCGCCAGTCCGCCCGGAGCCCGCCCAGTCGCCGCGCTGC
ACGCCCGGGGTGAACCCTCTGCCCTCGCTGGGACAGAGGGCCCCGCAGCCGTC**ATG**CTTTCCGCCATCTACACAG
TCCTGGCGGGACTGCTGTTCCTGCCGCTCCTGGTGAACCTCTGCTGCCCATACTTCTTCCAGGACATAGGCTACT
TCTTGAAGGTGGCCGCCGTGGGCCGGAGGGTGCGCAGCTACGGGCAGCGGCGGCCGGCGCGCACCATCCTGCGGG
CGTTCCTGGAGAAAGCGCGCCAGACGCCACACAAGCCTTTTCTGCTCTTCCGCGACGAGACTCTCACCTACGCGC
AGGTGGACCGGCGCAGCAATCAAGTGGCCCGGGCGCTGCACGACCACCTCGGCCTGCGCCAGGGAGACTGCGTGG
CGCTCCTTATGGGTAACGAGCCGGCCTACGTGTGGCTGTGGCTGGGGCTGGTGAAGCTGGGCTGTGCCATGGCGT
GCCTCAATTACAACATCCGCGCGAAGTCCCTGCTGCACTGCTTCCAGTGCTGCGGGGCGAAGGTGCTGCTGGTGT
CGCCAGAACTACAAGCAGCTGTCGAAGAGATACTGCCAAGCCTTAAAAAAGATGATGTGTCCATCTATTATGTGA
GCAGAACTTCTAACACAGATGGGATTGACTCTTTCCTGGACAAAGTGGATGAAGTATCAACTGAACCTATCCCAG
AGTCATGGAGGTCTGAAGTCACTTTTTCCACTCCTGCCTTATACATTTATACTTCTGGAACCACAGGTCTTCCAA
AAGCAGCCATGATCACTCATCAGCGCATATGGTATGGAACTGGCCTCACTTTTGTAAGCGGATTGAAGGCAGATG
ATGTCATCTATATCACTCTGCCCTTTTACCACAGTGCTGCACTACTGATTGGCATTCACGGATGTATTGTGGCTG
GTGCTACTCTTGCCTTGCGGACTAAATTTTCAGCCAGCCAGTTTTGGGATGACTGCAGAAAATACAACGTCACTG
TCATTCAGTATATCGGTGAACTGCTTCGGTATTTATGCAACTCACCACAGAAACCAAATGACCGTGATCATAAAG
TGAGACTGGCACTGGGAAATGGCTTACGAGGAGATGTGTGGAGACAATTTGTCAAGAGATTTGGGGACATATGCA
TCTATGAGTTCTATGCTGCCACTGAAGGCAATATTGGATTTATGAATTATGCGAGAAAAGTTGGTGCTGTTGGAA
GAGTAAACTACCTACAGAAAAAAATCATAACTTATGACCTGATTAAATATGATGTGGAGAAAGATGAACCTGTCC
GTGATGAAAATGGATATTGCGTCAGAGTTCCCAAAGGTGAAGTTGGACTTCTGGTTTGCAAAATCACACAACTTA
CACCATTTAATGGCTATGCTGGAGCAAAGGCTCAGACAGAGAAGAAAAAACTGAGAGATGTCTTTAAGAAAGGAG
ACCTCTATTTCAACAGTGGAGATCTCTTAATGGTTGACCATGAAAATTTCATCTATTTCCACGACAGAGTTGGAG
ATACATTCCGGTGGAAAGGGGAAAATGTGGCCACCACTGAAGTTGCTGATACAGTTGGACTGGTTGATTTTGTCC
AAGAAGTAAATGTTTATGGAGTGCATGTGCCAGATCATGAGGGTCGCATTGGCATGGCCTCCATCAAAATGAAAG
AAAACCATGAATTTGATGGAAAGAAACTCTTTCAGCACATTGCTGATTACCTACCTAGTTATGCAAGGCCCCGGT
TTCTAAGAATACAGGACACCATTGAGATCACTGGAACTTTTAAACACCGCAAAATGACCCTGGTGGAGGAGGGCT
TTAACCCTGCTGTCATCAAAGATGCCTTGTATTTCTTGGATGACACAGCAAAAATGTATGTGCCTATGACTGAGG
ACATCTATAATGCCATAAGTGCTAAAACCCTGAAACTC**TGA**ATATTCCCAGGAGGATAACTCAACATTTCCAGAA
AGAAACTGAATGGACAGCCACTTGATATAATCCAACTTTAATTTGATTGAAGATTGTGAGGAAATTTTGTAGGAA
ATTTGCATACCCGTAAAGGGAGACTTTTTTAAATAACAGTTGAGTCTTTGCAAGTAAAAAGATTTAGAGATTATT
ATTTTTCAGTGTGCACCTACTGTTTGTATTTGCAAACTGAGCTTGTTGGAGGGAAGGCATTATTTTTTAAAATAC
TTAGTAAATTAAATGAAC

FIGURE 467

MLSAIYTVLAGLLFLPLLVNLCCPYFFQDIGYFLKVAAVGRRVRSYGQRRPARTILRAFLEKARQTPHKPFLLFR
DETLTYAQVDRRSNQVARALHDHLGLRQGDCVALLMGNEPAYVWLWLGLVKLGCAMACLNYNIRAKSLLHCFQCC
GAKVLLVSPELQAAVEEILPSLKKDDVSIYYVSRTSNTDGIDSFLDKVDEVSTEPIPESWRSEVTFSTPALYIYT
SGTTGLPKAAMITHQRIWYGTGLTFVSGLKADDVIYITLPFYHSAALLIGIHGCIVAGATLALRTKFSASQFWDD
CRKYNVTVIQYIGELLRYLCNSPQKPNDRDHKVRLALGNGLRGDVWRQFVKRFGDICIYEFYAATEGNIGFMNYA
RKVGAVGRVNYLQKKIITYDLIKYDVEKDEPVRDENGYCVRVPKGEVGLLVCKITQLTPFNGYAGAKAQTEKKKL
RDVFKKGDLYFNSGDLLMVDHENFIYFHDRVGDTFRWKGENVATTEVADTVGLVDFVQEVNVYGVHVPDHEGRIG
MASIKMKENHEFDGKKLFQHIADYLPSYARPRFLRIQDTIEITGTFKHRKMTLVEEGFNPAVIKDALYFLDDTAK
MYVPMTEDIYNAISAKTLKL

FIGURE 468

ATACGACTACACCTGCTCCGGAGCCCGCGGCGGTACCTGCAGCGGAGGAGCTCTGTCTTCCCCTTCATCTCACGC
GAGCCCGGCGTCCCGCCGCGTGCGCCCCGGCGCAGCCCGCCAGTCCGCCCGGAGCCCGCCCAGTCGCCGCGCTGC
ACGCCCGGGGTGAACCCTCTGCCCTCGCTGGGACAGAGGGCCCCGCAGCCGTC**ATG**CTTTCCGCCATCTACACAG
TCCTGGCGGGACTGCTGTTCCTGCCGCTCCTGGTGAACCTCTGCTGCCCATACTTCTTCCAGGACATAGGCTACT
TCTTGAAGGTGGCCGCCGTGGGCCGGAGGGTGCGCAGCTACGGGCAGCGGCGGCCGGCGCGCACCATCCTGCGGG
CGTTCCTGGAGAAAGCGCGCCAGACGCCACACAAGCCTTTTCTGCTCTTCCGCGACGAGACTCTCACCTACGCGC
AGGTGGACCGGCGCAGCAATCAAGTGGCCCGGGCGCTGCACGACCACCTCGGCCTGCGCCAGGGAGACTGCGTGG
CGCTCCTTATGGGTAACGAGCCGGCCTACGTGTGGCTGTGGCTGGGGCTGGTGAAGCTGGGCTGTGCCATGGCGT
GCCTCAATTACAACATCCGCGCGAAGTCCCTGCTGCACTGCTTCCAGTGCTGCGGGGCGAAGGTGCTGCTGGTGT
CGCCAGAACTACAAGCAGCTGTCGAAGAGATACTGCCAAGCCTTAAAAAAGATGATGTGTCCATCTATTATGTGA
GCAGAACTTCTAACACAGATGGGATTGACTCTTTCCTGGACAAAGTGGATGAAGTATCAACTGAACCTATCCCAG
AGTCATGGAGGTCTGAAGTCACTTTTTCCACTCCTGCCTTATACATTTATACTTCTGGAACCACAGGTCTTCCAA
AAGCAGCCATGATCACTCATCAGCGCATATGGTATGGAACTGGCCTCACTTTTGTAAGCGGATTGAAGGCAGATG
ATGTCATCTATATCACTCTGCCCTTTTACCACAGTGCTGCACTACTGATTGGCATTCACGGATGTATTGTGGCTG
GTGCTACTCTTGCCTTGCGGACTAAATTTTCAGCCAGCCAGTTTTGGGATGACTGCAGAAAATACAACGTCACTG
TCATTCAGTATATCGGTGAACTGCTTCGGTATTTATGCAACTCACCACAGAAACCAAATGACCGTGATCATAAAG
TGAGACTGGCACTGGGAAATGGCTTACGAGGAGATGTGTGGAGACAATTTGTCAAGAGATTGGGGACATATGCA
TCTATGAGTTCTATGCTGCCACTGAAGGCAATATTGGATTTATGAATTATGCGAGAAAAGTTGGTGCTGTTGGAA
GAGTAAACTACCTACAGAAAAAAATCATAACTTATGACCTGATTAAATATGATGTGGAGAAAGATGAACCTGTCC
GTGATGAAAATGGATATTGCGTCAGAGTTCCCAAAGGTGAAGTTGGACTTCTGGTTTGCAAAATCACACAACTTA
CACCATTTAATGGCTATGCTGGAGCAAAGGCTCAGACAGAGAAGAAAAAACTGAGAGATGTCTTTAAGAAAGGAG
ACCTCTATTTCAACAGTGGAGATCTCTTAATGGTTGACCATGAAAATTTCATCTATTTCCACGACAGAGTTGGAG
ATACATTCCGGTGGAAAGGGGAAAATGTGGCCACCACTGAAGTTGCTGATACAGTTGGACTGGTTGATTTTGTCC
AAGAAGTAAATGTTTATGGAGTGCATGTGCCAGATCATGAGGGTCGCATTGGCATGGCCTCCATCAAAATGAAAG
AAAACCATGAATTTGATGGAAAGAAACTCTTTCAGCACATTGCTGATTACCTACCTAGTTATGCAAGGCCCCGGT
TTCTAAGAATACAGGACACCATTGAGATCACTGGAACTTTTAAACACCGCAAAATGACCCTGGTGGAGGAGGGCT
TTAACCCTGCTGTCATCAAAGATGCCTTGTATTTCTTGGATGACACAGCAAAAATGTATGTGCCTATGACTGAGG
ACATCTATAATGCCATAAGTGCTAAAACCCTGAAACTC**TGA**ATATTCCCAGGAGGATAACTCAACATTTCCAGAA
AGAAACTGAATGGACAGCCACTTGATATAATCCAACTTTAATTTGATTGAAGATTGTGAGGAAATTTTGTAGGAA
ATTTGCATACCCGTAAAGGGAGACTTTTTTAAATAACAGTTGAGTCTTTGCAAGTAAAAAGATTTAGAGATTATT
ATTTTTCAGTGTGCACCTACTGTTTGTATTTGCAAACTGAGCTTGTTGGAGGGAAGGCATTATTTTTTAAAATAC
TTAGTAAATTAAATGAAC

FIGURE 469

MLSAIYTVLAGLLFLPLLVNLCCPYFFQDIGYFLKVAAVGRRVRSYGQRRPARTILRAFLEKARQTPHKPFLLFR
DETLTYAQVDRRSNQVARALHDHLGLRQGDCVALLMGNEPAYVWLWLGLVKLGCAMACLNYNIRAKSLLHCFQCC
GAKVLLVSPELQAAVEEILPSLKKDDVSIYYVSRTSNTDGIDSFLDKVDEVSTEPIPESWRSEVTFSTPALYIYT
SGTTGLPKAAMITHQRIWYGTGLTFVSGLKADDVIYITLPFYHSAALLIGIHGCIVAGATLALRTKFSASQFWDD
CRKYNVTVIQYIGELLRYLCNSPQKPNDRDHKVRLALGNGLRGDVWRQFVKRFGDICIYEFYAATEGNIGFMNYA
RKVGAVGRVNYLQKKIITYDLIKYDVEKDEPVRDENGYCVRVPKGEVGLLVCKITQLTPFNGYAGAKAQTEKKKL
RDVFKKGDLYFNSGDLLMVDHENFIYFHDRVGDTFRWKGENVATTEVADTVGLVDFVQEVNVYGVHVPDHEGRIG
MASIKMKENHEFDGKKLFQHIADYLPSYARPRFLRIQDTIEITGTFKHRKMTLVEEGFNPAVIKDALYFLDDTAK
MYVPMTEDIYNAISAKTLKL

FIGURE 470

CTCTCTCTCTATCTCTCTCAGA**ATG**ACAATTCTAGGTACAACTTTTGGCATGGTTTTTTCTTTACTTCAAGTCGT
TTCTGGAGAAAGTGGCTATGCTCAAAATGGAGACTTGGAAGATGCAGAACTGGATGACTACTCATTCTCATGCTA
TAGCCAGTTGGAAGTGAATGGATCGCAGCATTCACTGACCTGTGCTTTTGAGGACCCAGATGTCAACACCACCAA
TCTGGAATTTGAAATATGTGGGGCCCTCGTGGAGGTAAAGTGCCTGAATTTCAGGAAACTACAAGAGATATATTT
CATCGAGACAAAGAAATTCTTACTGATTGGAAAGAGCAATATATGTGTGAAGGTTGGAGAAAAGAGTCTAACCTG
CAAAAAAATAGACCTAACCACTATAGTTAAACCTGAGGCTCCTTTTGACCTGAGTGTCATCTATCGGGAAGGAGC
CAATGACTTTGTGGTGACATTTAATACATCACACTTGCAAAGAAGTATGTAAAAGTTTTAATGCATGATGTAGC
TTACCGCCAGGAAAAGGATGAAAACAAATGGACGCATGTGAATTTATCCAGCACAAAGCTGACACTCCTGCAGAG
AAAGCTCCAACCGGCAGCAATGTATGAGATTAAAGTTCGATCCATCCCTGATCACTATTTTAAAGGCTTCTGGAG
TGAATGGAGTCCAAGTTATTACTTCAGAACTCCAGAGATCAATAATAGCTCAGGGGAGATGGATCCTATCTTACT
AACCATCAGCATTTTGAGTTTTTTCTCTGTCGCTCTGTTGGTCATCTTGGCCTGTGTGTTATGGAAAAAAAGGAT
TAAGCCTATCGTATGGCCCAGTCTCCCCGATCATAAGAAGACTCTGGAACATCTTTGTAAGAAACCAAGAAAAAA
TTTAAATGTGAGTTTCAATCCTGAAAGTTTCCTGGACTGCCAGATTCATAGGGTGGATGACATTCAAGCTAGAGA
TGAAGTGGAAGGTTTTCTGCAAGATACGTTTCCTCAGCAACTAGAAGAATCTGAGAAGCAGAGGCTTGGAGGGGA
TGTGCAGAGCCCCAACTGCCCATCTGAGGATGTAGTCGTCACTCCAGAAAGCTTTGGAAGAGATTCATCCCTCAC
ATGCCTGGCTGGGAATGTCAGTGCATGTGACGCCCCTATTCTCTCCTCTTCCAGGTCCCTAGACTGCAGGGAGAG
TGGCAAGAATGGGCCTCATGTGTACCAGGACCTCCTGCTTAGCCTTGGGACTACAAACAGCACGCTGCCCCCTCC
ATTTTCTCTCCAATCTGGAATCCTGACATTGAACCCAGTTGCTCAGGGTCAGCCCATTCTTACTTCCCTGGGATC
AAATCAAGAAGAAGCATATGTCACCATGTCCAGCTTCTACCAAAACCAG**TGA**AGTGTAAGAAACCCAGACTGAAC
TTACCGTGAGCGACAAAGATGATTTAAAAGGGAAGTCTAGAGTTCCTAGTCTCCCTCACAGCACAGAGAAGACAA
AATTAGCAAAACCCCACTACACAGTCTGCAAGATTCTGAAACATTGCTTTGACCACTCTTCCTGAGTTCAGTGGC
ACTCAACATGAGTCAAGAGCATCCTGCTTCTACCATGTGGATTTGGTCACAAGGTTTAAGGTGACCCAATGATTC
AGCTATTT

FIGURE 471

MTILGTTFGMVFSLLQVVSGESGYAQNGDLEDAELDDYSFSCYSQLEVNGSQHSLTCAFEDPDVNTTNLEFEICG
ALVEVKCLNFRKLQEIYFIETKKFLLIGKSNICVKVGEKSLTCKKIDLTTIVKPEAPFDLSVIYREGANDFVVTF
NTSHLQKKYVKVLMHDVAYRQEKDENKWTHVNLSSTKLTLLQRKLQPAAMYEIKVRSIPDHYFKGFWSEWSPSYY
FRTPEINNSSGEMDPILLTISILSFFSVALLVILACVLWKKRIKPIVWPSLPDHKKTLEHLCKKPRKNLNVSFNP
ESFLDCQIHRVDDIQARDEVEGFLQDTFPQQLEESEKQRLGGDVQSPNCPSEDVVVTPESFGRDSSLTCLAGNVS
ACDAPILSSSRSLDCRESGKNGPHVYQDLLLSLGTTNSTLPPPFSLQSGILTLNPVAQGQPILTSLGSNQEEAYV
TMSSFYQNQ

FIGURE 472

GCCCAGACCTATGGATTGAAAGCGTGTGCTTTACCCATCTGCTGTCTTGCTCCATCTGAGACCAGAGCCAAGATC
TGCCCAGGACTGGAATGCTTTCCCGAGTGGCTTGAGTTGGAGCCTGGGACTAGGAGCAGCCTTATTGAGGTACAA
TTCATGTGCTTGTGGGTTTGGATGGCACAATCTGTGTCTGGGCTAAGGAAAGCAGACTTGGCACCAACATTAACC
CTGACAGATCCAGGCATCTATTCCAGGAACTGGAAGCCAAGCGCAACAGGTGCTTGGAGGTCATC**ATG**ATCAGCC
CAGACCCCAGGCCCTCCCCTGGCTTGGCCCGGTGGGCTGAGAGCTATGAGGCCAAGTGTGAGCGCAGGCAAGAGA
TCCGTGAAAGCCGCCGCTGCCGTCCCAATGTGACCACTTGCCGCCAGGTGGGGAAGACGCTGAGGATCCAACAGA
GAGAGCAGCTCCAGAGAGCTCGACTGCAGCAGTTCTTCAGGAGGAGGAACCTGGAGCTAGAGGAGAAGGGCAAAG
CGCAGCATCCCCAGGCCAGGGAGCAAGGGCCCTCCAGGCGGCCAGGACAGGTGACAGGCACCAGCTCTGAAGTCT
TTCCAGCCCAGCATCCTCCTCCCTCAGGCATCTGCAGGGATCTGTCTGACCACCTCTCCTCACAGGCTGGGGGCC
TTCCTCCACAGGACACTCCCATCAAGAAGCCACCCAAACACCACCGTGGTACTCAGACAAAGGCAGAAGGACCAA
CAATTAAGAACGATGCCAGTCAGCAAACCAATTACGGAGTTGCAGTTCTGGATAAGGAAATCATCCAGCTTTCTG
ATTACCTCAAAGAGGCCCTACAAAGGGAGCTGGTCCTAAAACAGAAAATGGTGATTCTCCAAGACCTACTGTCCA
CTCTGATTCAGGCCTCTGACAGCTCTTGGAAGGGACAGCTTAATGAAGACAAACTGAAGGGGAAACTGAGATCCT
TAGAAAACCAGCTATACACCTGTACCCAGAAATACTCCCCTTGGGGAATGAAAAAAGTACTACTGGAGATGGAAG
ACCAGAAAAACAGCTATGAGCAGAAGGCCAAGGAGTCACTGCAGAAAGTGCTGGAGGAGAAAATGAATGCAGAGC
AGCAACTACAGAGCACACAGCGATCCCTGGCCCTGGCAGAGCAGAAGTGTGAAGAGTGGAGGAGCCAGTATGAGG
CTCTGAAGGAGGACTGGAGGACCCTTGGGACCCAGCACAGGGAGCTGGAGAGCCAACTCCACGTGCTTCAGTCCA
AACTGCAGGGAGCAGATAGCAGGGACTTACAGATGAACCAGCCCTGCGATTTTTGGAAAATGAGCACCAGCAAC
TGCAGGCCAAGATTGAATGCCTGCAAGGGGACAGAGACCTGTGCAGCTTGGATACCCAGGACCTACAAGATCAAC
TAAAAAGGTCAGAGGCAGAGAAACTCACCCTGGTGACCAGAGTACAGCAGTTGCAGGGTTTGCTTCAAAATCAAT
CCTTACAGCTTCAAGAACAGGAGAAACTCTTAACAAAGAAAGATCAGGCTTTGCCCGTGTGGAGTCCAAAGTCCT
TCCCTAACGAAGTGGAGCCTGAGGGTACAGGGAAGGAGAAAGACTGGGATCTCAGAGACCAGCTGCAAAAGAAGA
CTTTGCAGCTCCAGGCCAAGGAAAAGGAGTGCAGAGAACTGCATTCAGAATTAGACAACCTCAGTGACGAGTATC
TCTCCTGCCTGCGTAAGCTGCAGCACTGTCGAGAAGAGCTGAACCAGAGCCAGCAGCTGCCTCCCAGAAGGCAAT
GTGGGCGATGGCTCCCAGTGCTGATGGTGGTGATTGCTGCAGCACTGGCAGTGTTCCTGGCCAATAAAGACAACC
TGATGATC**TGA**ATAATTTGTGACAACTGCCTTGGGTGAAAATCAGAAGCAAGCAACTCAGCGAAAAACTCAGAAG
GTTTGGGTACATTACAGCTTGGGTTTTCCAACTGACTTAGGATTTCTGACTTTTTATTAATTTCTTAACCTACTG
TAAATAAACTTCACCTGACCAGATTGTTCCTCA

FIGURE 473

MISPDPRPSPGLARWAESYEAKCERRQEIRESRRCRPNVTTCRQVGKTLRIQQREQLQRARLQQFFRRRNLELEE
KGKAQHPQAREQGPSRRPGQVTGTSSEVFPAQHPPPSGICRDLSDHLSSQAGGLPPQDTPIKKPPKHHRGTQTKA
EGPTIKNDASQQTNYGVAVLDKEIIQLSDYLKEALQRELVLKQKMVILQDLLSTLIQASDSSWKGQLNEDKLKGK
LRSLENQLYTCTQKYSPWGMKKVLLEMEDQKNSYEQKAKESLQKVLEEKMNAEQQLQSTQRSLALAEQKCEEWRS
QYEALKEDWRTLGTQHRELESQLHVLQSKLQGADSRDLQMNQALRFLENEHQQLQAKIECLQGDRDLCSLDTQDL
QDQLKRSEAEKLTLVTRVQQLQGLLQNQSLQLQEQEKLLTKKDQALPVWSPKSFPNEVEPEGTGKEKDWDLRDQL
QKKTLQLQAKEKECRELHSELDNLSDEYLSCLRKLQHCREELNQSQQLPPRRQCGRWLPVLMVVIAAALAVFLAN
KDNLMI

FIGURE 474A

GGCTCCAGCTCCAGCAGCCATGGCGCCTTGTGCAGCCTCCTTTGTGGGTGGAGAAGAGCTCAGCCAACCTTGGAT
GGAGCGTCGGTGAAGCAAGAGCTCAGAGGGGAGAGGGGCTGGCCTGGCATGACCGTCGCCAGTCCCCCCACCTGG
CTGGGTGATGTCCCCCGGCCCGGGTTCTGGGGCCCCTTGGCAGTACC**ATG**GAGCAACTGACAACCCTCCCACGGC
CTGGGGACCCTGGAGCCATGGAGCCATGGGCACTGCCCACCTGGCATAGCTGGACTCCAGGTCGAGGGGGTGAAC
CTAGCAGTGCAGCCCCAAGCATCGCTGATACTCCTCCGGCAGCTCTGCAGCTTCAAGAACTGAGGTCTGAGGAGA
GTTCCAAGCCCAAAGGAGACGGGAGCTCCAGGCCCGTGGGGGGAACTGACCCTGAAGGAGCAGAGGCTTGTCTGC
CCAGCCTGGGCCAGCAAGCATCCAGCTCTGGACCCGCCTGCCAGAGGCCAGAGGATGAGGAAGTGGAGGCTTTCC
TGAAGGCCAAGCTGAATATGAGCTTTGGGGACAGGCCCAATCTGGAGCTGCTGAGGGCCCTGGGGGAGCTGCGGC
AGCGCTGTGCCATCCTTAAGGAGGAAAACCAGATGCTGAGGAAGAGCAGCTTCCCTGAGACAGAAGAGAAGGTGC
GGAGGCTGAAGCGGAAGAACGCCGAGCTGGCGGTCATTGCCAAGCGCCTGGAGGAGAGGGCCCGAAAGCTGCAGG
AAACGAACCTGAGGGTGGTGAGTGCCCCCTTGCCCCGGCCGGGGACCAGCTTGGAGTTGTGTCGGAAGGCCCTAG
CCCGCCAGCGAGCCCGGGACCTCAGTGAGACAGCCAGTGCACTGCTGGCCAAGGACAAGCAGATTGCTGCCTTGC
AGCGGGAGTGCAGGGAGCTGCAGGCCAGGCTCACTCTGGTGGGCAAGGAGGGTCCCCAGTGGCTCCACGTGCGGG
ACTTCGATCGGCTGCTGCGCGAGTCCCAGCGGGAGGTGCTGCGGCTGCAGAGGCAGATCGCGCTGCGCAACCAGC
GGGAGACGCTCCCGCTCCCGCCGTCCTGGCCCCCGGGCCCTGCTCTCCAGGCCAGAGCAGGGGCGCCTGCTCCCG
GGGCCCCGGGAGAGGCCACGCCCCAGGAGGATGCGGACAACCTACCCGTGATTCTAGGGGAGCCAGAGAAAGAGC
AGAGGGTGCAGCAGCTGGAATCGGAGCTCAGCAAGAAGCGGAAGAAATGCGAGAGCCTGGAGCAGGAAGCCCGGA
AAAAGCAGAGGCGATGTGAGGAGCTGGAACTGCAGCTGAGACAAGCGCAGAATGAGAATGCCCGCCTGGTGGAGG
AGAACTCCCGGCTCAGTGGGAGAGCCACAGAGAAGGAGCAGGTGGAGTGGGAGAATGCGGAGCTGAGGGGCCAGC
TCCTGGGGGTGACACAGGAGAGGGACTCAGCCCTTCGCAAGAGCCAGGGCCTGCAGAGCAAGCTGGAGAGCCTGG
AGCAAGTGCTGAAGCACATGCGGGAGGTGGCCCAGCGGCGGCAGCAGCTGGAGGTGGAGCATGAACAGGCTCGGC
TCAGCCTACGGGAGAAGCAGGAGGAGGTCCGGAGACTGCAGCAGGCCCAGGCTGAAGCCCAGAGGGAACATGAAG
GAGCCGTGCAGCTGCTGGAGTCTACCTTGGATTCCATGCAGGCCCGGGTTCGAGAGCTCGAAGAACAGTGCCGCA
GCCAAACCGAGCAGTTCAGCCTCCTGGCACAAGAACTCCAGGCTTTCCGCCTGCACCCGGGCCCCTTGGATCTGC
TCACATCTGCCCTGGACTGTGGGAGCCTTGGAGACTGCCCACCACCCCCTGCTGCTGCTCCATTCCCCAGCCTT
GCCGGGGGTCTGGCCCCAAAGACCTTGACCTCCCGCCGGGCTCCCCTGGGCGCTGCACCCCAAAGTCTTCCGAGC
CTGCCCCTGCCACTCTCACTGGGGTCCCTCGAAGGACAGCCAAGAAGGCAGAGTCTCTCTCCAACTCCTCCCACT
CCGAGTCCATCCACAACAGCCCCAAGTCATGCCCTACACCTGAGGTGGACACAGCCAGTGAGGTAGAGGAGCTGG
AGGCAGACAGTGTCTCCCTGCTCCCAGCTGCGCCAGAGGGCAGCCGGGGAGGAGCCAGGATCCAGGTCTTCCTAG
CACGTTATAGCTACAACCCCTTTGAGGGTCCCAATGAGAATCCAGAAGCAGAGCTTCCGCTGACAGCTGGCGAGT
ACATCTACATCTATGGCAACATGGATGAGGATGGCTTTTTTGAAGGAGAGCTCATGGATGGCCGAAGGGGCCTGG
TCCCTTCCAATTTTGTAGAGCGTGTGTCGGATGATGACCTCCTGACCTCCCTCCCTCCAGAGCTGGCCGATTTGT
CCCACAGCTCAGGCCCTGAACTCAGTTTCCTGAGTGTAGGTGGGGGTGGCAGCAGTAGCGGGGGCCAAAGCAGTG
TGGGAAGGAGCCAGCCCAGACCTGAGGAGGAGGATGCAGGGGACGAGCTCAGTCTGAGCCCATCACCGGAGGGCC
TGGGCGAGCCTCCTGCCGTGCCTTACCCCCGCCGTCTGGTGGTCCTCAAGCAGCTGGCCCACAGCGTGGTGCTGG
CCTGGGAGCCGCCTCCTGAGCAAGTGGAGCTACACGGCTTCCATATCTGTGTGAATGGGGAGCTGCGACAGGCCC
TGGGGCCTGGGGCGCCACCCAAGGCCGTGCTGGAGAACCTGGACCTGTGGGCCGGGCCCCTTCACATTTCTGTCC
AGGCCCTGACTAGCCGGGGCAGCTCTGACCCACTGCGCTGTTGCTTGGCGGTGGGTGCCCGGGCCGGAGTGGTGC
CCAGCCAGCTGCGGGTCCATCGGTTGACAGCCACATCTGCTGAGATCACCTGGGTGCCCGGCAATAGCAACTTGG
CCCATGCCATCTACCTCAATGGGGAAGAATGCCCACCTGCCAGCCCCAGTACCTACTGGGCCACCTTCTGCCACT
TACGGCCTGGCACACCCTATCAGGCCCAAGTGGAGGCTCAGCTCCCACCCCAAGGGCCCTGGGAACCAGGCTGGG
AGAGGCTGGAGCAGCGGGCTGCCACCCTGCAGTTCACCACACTCCCAGCAGGCCCACCTGATGCCCCTCTGGATG
TGCAGATCGAGCCTGGGCCCTCCCCTGGGATCTTGATCATCAGTTGGCTCCCAGTCACCATCGATGCTGCTGGCA
CATCCAACGGTGTCCGGGTCACAGGCTATGCCATCTACGCTGATGGGCAGAAGATCATGGAGGTGGCCTCACCCA
CGGCAGGCAGTGTACTGGTGGAGTTGTCCCAGCTGCAGCTGCTGCAGGTGTGTCGTGAGGTGGTCGTGCGCACCA
TGTCGCCCCACGGGGAGTCGGCGGACTCCATCCCGGCTCCTATCACTCCCGCCCTGGCTCCGGCCAGCCTGCCAG
CCCGAGTCTCCTGCCCCTCACCGCACCCAAGCCCAGAGGCCAGAGCGCCCCTTGCTTCAGCCTCCCCAGGGCCTG
GAGACCCCAGCTCTCCTCTCCAGCACCCTGCTCCCCTTGGAACTCAAGAGCCTCCAGGAGCACCCCCTGCAAGCC

FIGURE 474B

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CTTCCAGAGAGATGGCAAAAGGGTCCCACGAGGACCCTCCAGCACCTTGCTCCCAGGAGGAGGCTGGGGCAGCAG
TGCTGGGCACCTCAGAGGAGAGGACAGCCAGCACATCTACCCTGGGTGAGAAGGACCCTGGCCCCGCAGCTCCCT
CACTGGCCAAGCAGGAGGCCGAGTGGACTGCAGGAGAGGCCTGTCCGGCCTCCAGCTCCACCCAGGGAGCACGGG
CCCAGCAGGCGCCAAATACCGAGATGTGCCAAGGAGGAGACCCAGGGTCTGGGCTGAGGCCCAGGGCTGAGAAGG
AGGACACAGCAGAGCTTGGGGTTCATCTGGTGAACTCCCTCGTGGACCACGGCCGCAACTCAGACCTGTCAGACA
TCCAGGAGGAAGAGGAAGAGGAGGAGGAGGAGGAAGAGGAGCTGGGTTCCAGGACTTGCTCCTTCCAGAAGC
AGGTTGCTGGCAACAGCATCAGGGAGAATGGGGCCAAGTCCCAGCCCGACCCCTTTTGTGAGACTGACAGCGATG
AGGAGATCTTGGAGCAGATCCTGGAGCTGCCCCTCCAGCAGTTCTGTAGCAAGAAGCTCTTTAGCATCCCGGAGG
AGGAGGAAGAGGAAGAGGAGGACGAGGAGGAGGAGAAGTCTGGGGCAGGCTGTTCTTCCCGAGACCCTGGCCCGC
CTGAACCTGCATTGCTGGGGCTGGGCTGTGACAGTGGTCAGCCCCGAAGACCTGGCCAGTGTCCCTTGTCTCCTG
AGTCCTCCAGGGCTGGAGACTGCCTGGAAGACATGCCTGGATTAGTTGGTGGAAGCAGCCGGAGGAGAGGAGGGG
GCTCCCCTGAGAAGCCCCCAAGCCGCAGGCGGCCTCCAGATCCCCGAGAACACTGCAGCCGACTTCTCAGCAACA
ATGGGCCCCAGGCCTCTGGACGACTGGGCCCCACACGGGAGAGGGGTGGCCTCCCCGTAATTGAGGGCCCCAGGA
CTGGACTAGAGGCTAGCGGGAGAGGCCGGCTGGGCCCTTCCCGGAGGTGCTCCCGTGGCCGGGCGCTGGAGCCTG
GCCTGGCCAGCTGCCTTTCCCCCAAGTGCTTGGAAATCAGCATTGAATATGATTCGGAGGATGAGCAGGAGGCGG
GCAGCGGGGGCATCAGCATCACCAGCTCCTGCTACCCTGGAGATAGGGAGGCCTGGGGCACAGCAACTGTAGGAA
GGCCCAGGGGGCCTCCGAAGGCCAATTCAGGCCCCAAGCCCTACCCACGCCTCCCAGCCTGGGAGAAAGGGGAAC
CAGAGCGGAGAGGCCGCAGTGCGACGGGCAGAGCCAAGGAGCCACTCTCCCGGGCAACAGAGACCGGAGAGGCCA
GAGGGCAGGACGGCTCTGGGCGGAGGGGCCCCCAGAAGAGAGGTGTCCGAGTCCTCAGGCCAAGCACTGCAGAGC
TAGTCCCTGCGAGGAGCCCCTCAGAAACACTGGCTTACCAGCACCTACCCGTCAGGATCTTTGTGGCTCTGTTTG
ACTATGACCCCGTGTCAATGTCGCCCAATCCTGATGCTGGAGAAGAAGAGCTTCCCTTCCGAGAGGGTCAGATCC
TGAAGGTGTTTGGGGACAAGGATGCCGATGGCTTCTACCAGGGCGAAGGTGGGGGCCGGACAGGCTACATTCCCT
GCAACATGGTGGCTGAGGTGGCTGTGGACAGCCCTGCTGGGAGACAGCAACTGCTCCAGCGGGGTTATTTGTCCC
CAGATATTCTCCTTGAGGGCTCAGGGAATGGTCCGTTTGTGTACTCCACAGCCCACACAACTGGGCCTCCTCCCA
AGCCCCGCCGCTCCAAGAAAGCTGAGTCGGAAGGCCCTGCCCAGCCCTGTCCAGGCCCCCCTAAGCTGGTCCCCT
CTGCTGACCTGAAAGCTCCCCACTCCATGGTGGCTGCATTTGACTACAACCCCCAGGAGAGTTCCCCCAATATGG
ACGTGGAGGCAGAGCTGCCCTTCCGGGCAGGGGATGTCATTACTGTGTTTGGGGGCATGGACGATGACGGTTTCT
ACTATGGGGAATTAAATGGACAAAGGGGCCTGGTTCCATCCAACTTCCTGGAGGGCCCTGGGCCTGAGGCAGGCG
GCCTGGACAGGGAACCCAGGACACCCCAGGCTGAGAGTCAGAGAACGAGGAGGAGAAGAGTCCAGTGC**TAG**ATGG
AGATAGATATGTAGAGAGAGCAACATGACTGGGGCTGCACCACACAAGGGTCCCCAGGGCCCCCAGGTGGGCC
TTGTACCCCCAGCTCTGGCAGCGCCCCCAGGATTGAACGTGGGGAGCCCCAGGGCAGAAGCGAGAAGGTGTGGGT
TTTTTTCCAAGGGGAAGCAGCTCCTCAGGAGGATGGGCTCTGGGAAGAAGGAGTGAAGCTGTGGCCCATCCTGCA
GGCAGAAGAGGCCCTGAGAGGCCCCCAGATCACTGTTTTGCTGAGCAGGGAAGGCTCAGAATGGGCCCAGAGCC
CCCGTTCTTTTGCGTTAACACTGTGGCATTCAGAGGGAATCAAAGAGCCTTGGTGAAGGTCAGAGCTAAATGGCT
CCTTAAGGATGAACTTTTTAGAGAAGCACCTTCCTCCTACAGGAGGGGAAACTGAGCCCACAGTGAGTATGTAAC
TTGACCAAGGTCACTGAGCCAGGACTGGACCCAGGACCCTCGCGTCCTGGTCCACCCACCTCGTCTACTAGTGTC
CCACAGTGCTGCGCTAGTCCCTTTTGCCACCCTTCCCAGTCCCAGGACGGGCCCTGGAGGGAGAAAGGAGCCTGT
GCCCCCTGATGGCTCTGGCTGTCCTGATCCTGTCTTCCCTCCCCTGAAGGAAAGTTTGCACTGGATTTTATTGGA
GCCCCATCTCCCCAGCGGGCAGGCGGGCGGAGCCTGTATATATGTATATACTCAGTGCCTCAGTTCAGCTTCCTC
CACCTCGCTTCCACTGCACAGGCCCAGGAAGGAGAAAGGCCAAGCCAAAGTGGGCCCCACCCTGCCCCCGTCGTG
CTCCATCCTTCCCTGCCGGGGCCTGCTGGCCCCTGTAAGGTCCCGCCCCCAAAGACCCTGGGGCCAGCGGGGCCG
AAAGCGGAGTTGGGTTTGCTTATTTTGCTCATTGGATTCAAGTTCTTTTGCATAGTTTTTTTCTAACCCCTGTTG
GAGTCCAGGGGCTGGAGAAAAGGACAGATTTATGCAGCTATTTTCATACATTCCCTGTTCAGAGTGGGGTAGGGG
TTTTCCGCCGTTACCCGATCCAATCCATCCCCCACCCTTTGAGGGGTGAGTGTGTCTTTGCATGTTTCCTTTGCT
GTGGTGGGAGATAGTTTGACTGAACCCCCACCTTGACCTTGGTCTCCAGGGGTGTGGAATGGTGGGGGAATTTGT
TTAAAAAGACATTTTATTATAATAAAGTCTATTTTCACAAAAAAAAAAAAAAAAAAAAA
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FIGURE 475

MEQLTTLPRPGDPGAMEPWALPTWHSWTPGRGGEPSSAAPSIADTPPAALQLQELRSEESSKPKGDGSSRPVGGT
DPEGAEACLPSLGQQASSSGPACQRPEDEEVEAFLKAKLNMSFGDRPNLELLRALGELRQRCAILKEENQMLRKS
SFPETEEKVRRLKRKNAELAVIAKRLEERARKLQETNLRVVSAPLPRPGTSLELCRKALARQRARDLSETASALL
AKDKQIAALQRECRELQARLTLVGKEGPQWLHVRDFDRLLRESQREVLRLQRQIALRNQRETLPLPPSWPPGPAL
QARAGAPAPGAPGEATPQEDADNLPVILGEPEKEQRVQQLESELSKKRKKCESLEQEARKKQRRCEELELQLRQA
QNENARLVEENSRLSGRATEKEQVEWENAELRGQLLGVTQERDSALRKSQGLQSKLESLEQVLKHMREVAQRRQQ
LEVEHEQARLSLREKQEEVRRLQQAQAEAQREHEGAVQLLESTLDSMQARVRELEEQCRSQTEQFSLLAQELQAF
RLHPGPLDLLTSALDCGSLGDCPPPPCCCSIPQPCRGSGPKDLDLPPGSPGRCTPKSSEPAPATLTGVPRRTAKK
AESLSNSSHSESIHNSPKSCPTPEVDTASEVEELEADSVSLLPAAPEGSRGGARIQVFLARYSYNPFEGPNENPE
AELPLTAGEYIYIYGNMDEDGFFEGELMDGRRGLVPSNFVERVSDDDLLTSLPPELADLSHSSGPELSFLSVGGG
GSSSGGQSSVGRSQPRPEEEDAGDELSLSPSPEGLGEPPAVPYPRRLVVLKQLAHSVVLAWEPPPEQVELHGFHI
CVNGELRQALGPGAPPKAVLENLDLWAGPLHISVQALTSRGSSDPLRCCLAVGARAGVVPSQLRVHRLTATSAEI
TWVPGNSNLAHAIYLNGEECPPASPSTYWATFCHLRPGTPYQAQVEAQLPPQGPWEPGWERLEQRAATLQFTTLP
AGPPDAPLDVQIEPGPSPGILIISWLPVTIDAAGTSNGVRVTGYAIYADGQKIMEVASPTAGSVLVELSQLQLLQ
VCREVVVRTMSPHGESADSIPAPITPALAPASLPARVSCPSPHPSPEARAPLASASPGPGDPSSPLQHPAPLGTQ
EPPGAPPASPSREMAKGSHEDPPAPCSQEEAGAAVLGTSEERTASTSTLGEKDPGPAAPSLAKQEAEWTAGEACP
ASSSTQGARAQQAPNTEMCQGGDPGSGLRPRAEKEDTAELGVHLVNSLVDHGRNSDLSDIQEEEEEEEEEEEEL
GSRTCSFQKQVAGNSIRENGAKSQPDPFCETDSDEEILEQILELPLQQFCSKKLFSIPEEEEEEEEDEEEEKSGA
GCSSRDPGPPEPALLGLGCDSGQPRRPGQCPLSPESSRAGDCLEDMPGLVGGSSRRRGGGSPEKPPSRRRPPDPR
EHCSRLLSNNGPQASGRLGPTRERGGLPVIEGPRTGLEASGRGRLGPSRRCSRGRALEPGLASCLSPKCLEISIE
YDSEDEQEAGSGGISITSSCYPGDREAWGTATVGRPRGPPKANSGPKPYPRLPAWEKGEPERRGRSATGRAKEPL
SRATETGEARGQDGSGRRGPQKRGVRVLRPSTAELVPARSPSETLAYQHLPVRIFVALFDYDPVSMSPNPDAGEE
ELPFREGQILKVFGDKDADGFYQGEGGGRTGYIPCNMVAEVAVDSPAGRQQLLQRGYLSPDILLEGSGNGPFVYS
TAHTTGPPPKPRRSKKAESEGPAQPCPGPPKLVPSADLKAPHSMVAAFDYNPQESSPNMDVEAELPFRAGDVITV
FGGMDDDGFYYGELNGQRGLVPSNFLEGPGPEAGGLDREPRTPQAESQRTRRRRVQC

FIGURE 476

ACCACTGCTGGCTTTTTGCTGTAGCTCCACATTCCTGTGCATTGAGGGGTTAACATTAGGCTGGGAAG**ATG**ACAA
AACTTGAAGAGCATCTGGAGGGAATTGTCAATATCTTCCACCAATACTCAGTTCGGAAGGGGCATTTTGACACCC
TCTCTAAGGGTGAGCTGAAGCAGCTGCTTACAAAGGAGCTTGCAAACACCATCAAGAATATCAAAGATAAAGCTG
TCATTGATGAAATATTCCAAGGCCTGGATGCTAATCAAGATGAACAGGTCGACTTTCAAGAATTCATATCCCTGG
TAGCCATTGCGCTGAAGGCTGCCCATTACCACACCCACAAAGAG**TAG**GTAGCTCTCTGAAGGCTTTTTACCCAGC
AATGTCCTCAATGAGGGTCTTTTCTTTCCCTCACCAAAACCCAGCCTTGCCCGTGGGGAGTAAGAGTTAATAAAC
ACACTCACGAAAAGTT

FIGURE 477

MTKLEEHLEGIVNIFHQYSVRKGHFDTLSKGELKQLLTKELANTIKNIKDKAVIDEIFQGLDANQDEQVDFQEFI
SLVAIALKAAHYHTHKE

FIGURE 478

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TGAATTCGGGAAGCGCCGCAGCGGCGGATCCGGCGGCTGCTGCAGCCCGGGCGGCTGCCGAGAAGGAGGGAGGGG
AAACACAAAGCCGGCTACGCGCTGCGAGATAACAAGAGTAATCCACAGACTTAAAAC ATGAGCTCAGATGCCAGC
CAAGGCGTGATTACCACTCCTCCTCCTCCCAGCATGCCTCACAAAGAGAGATATTTTGACCGCATCAATGAAAAT
GACCCAGAATACATTAGGGAGAGGAACATGTCTCCTGATCTACGACAAGACTTCAACATGATGGAGCAGAGGAAA
CGAGTTACTCAGATCCTGCAAAGTCCTGCCTTTCGGGAAGACTTGGAATGCCTTATTCAAGAACAGATGAAGAAA
GGCCACAACCCAACTGGATTACTAGCATTACAGCAGATTGCAGATTACATCATGGCCAATTCTTTCTCGGGTTTT
TCTTCACCTCCTCTCAGTCTTGGCATGGTCACACCTATCAATGACCTTCCTGGTGCAGATACATCCTCATATGTG
AAGGGAGAAAAACTTACTCGCTGTAAACTTGCCAGCCTGTACAGACTTGTAGACTTGTTTGGATGGGCACACCTG
GCAAATACCTATATCTCAGTAAGAATAAGTAAGGAGCAAGACCACATTATAATAATTCCCAGAGGCCTATCTTTT
TCTGAAGCTACAGCCTCCAATTTGGTGAAAGTCAATATAATAGGAGAAGTGGTTGACCAGGGAAGTACCAATTTG
AAAATTGACCATACAGGATTCAGTCCCCATGCTGCAATCTATTCAACACGTCCTGATGTTAAGTGTGTGATACAC
ATCCATACCCTTGCAACAGCAGCTGTATCCTCCATGAAATGTGGGATCCTTCCAATTTCTCAAGAGTCTCTTCTT
CTGGGAGATGTTGCCTATTATGACTACCAAGGGTCACTTGAAGAACAGGAGGAGAGAATTCAACTGCAGAAGGTT
CTGGGACCAAGTTGTAAGGTGCTGGTACTCAGGAATCATGGTGTGGTTGCACTTGGAGAAACATTAGAGGAGGCT
TTTCATTATATTTTTAATGTGCAACTAGCCTGTGAGATTCAGGTGCAGGCCCTAGCAGGTGCAGGTGGAGTAGAC
AATCTCCATGTACTGGACTTTCAGAAGTATAAAGCTTTCACTTACACTGTAGCAGCGTCTGGTGGAGGAGGTGTGT
AATATGGGTTCCCATCCAAAATGGAAGGTTGGCGAAATTGAGTTTGAAGGGCTTATGAGGACTCTGGACAACTTG
GGGTATAGAACAGGCTATGCTTACAGGCATCCTCTCATTCGAGAGAAGCCTAGGCACAAGAGTGATGTGGAAATC
CCAGCAACTGTGACTGCTTTTTCCTTTGAAGACGATACAATGCCACTCTCTCCTCTCCAAATACATGGCACAAGA
GGCAACAAGCGTGAAAAAACAAGATGGCTGAACTCACCAAATACTTACATGAAAGTGAATGTGCCTGAGGAGTCT
CGGAACGGAGAAACCAGTCCCCGAACCAAAATCACGTGGATGAAAGCAGAAGACTCATCTAAAGTTAGTGGTGGA
ACACCTATCCAAATTGAAGATCCAAATCAGTTTGTTCCTTTAAACACAAACCCGAATGAGGTACTAGAAAAGAGA
AATAAGATTCGGGAACAAAATCGATATGACTTGAAAACAGCAGGACCACAATCTCAGTTGCTTGCTGGAATTGTT
GTGGATAAGCCACCTTCTACTATGCAATTTGAAGATGATGATCATGGCCCACCAGCTCCTCCTAACCCATTTAGT
CATCTCACAGAAGGAGAACTTGAAGAGTATAAGAGGACAATCGAACGTAAACAACAAGGCCTAGAAGAAAACCAT
GAGCTGTTTTCCAAGAGCTTCATCTCCATGGAAGTGCCTGTCATGGTAGTAAATGGCAAGGATGATATGCATGAT
GTTGAAGATGAGCTTGCTAAGCGAGTGAGTAGGTTAAGCACAAGTACAACCATAGAAACATCGAGATTACTATT
AAGTCTCCAGAGAAATCGAAGAAGTCCTGTCACCTGAAGGCTCCCCTTCAAAATCGCCATCCAAGAAAAAGAAG
AAATTCCGCACTCCTTCTTTTCTGAAAAAGAACAAAAAAAAGGAGAAAGTTGAGGCC TAAATAAAGTCTTTTTAT
AATTATTATTATAACAATGTGACATTGCACATCTAAATACCACATTTAAGTTGATCATTAATATGCAATGGTAGA
TCAGATTGGGGGATGTAGCAAACTGGACTTTAAGAACTGGAAAGAGGTTTTACAAAAGAAAAACTTCAAGATTCA
TCTCTCATTTTATATGTCCAGAAATGGCTTTGGAATTTTAAGCAATTACTAGTTTTAATTAGCTCTGCCCTCATG
AAGTTTATTATT
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FIGURE 479

MSSDASQGVITTPPPPSMPHKERYFDRINENDPEYIRERNMSPDLRQDFNMMEQRKRVTQILQSPAFREDLECLI
QEQMKKGHNPTGLLALQQIADYIMANSFSGFSSPPLSLGMVTPINDLPGADTSSYVKGEKLTRCKLASLYRLVDL
FGWAHLANTYISVRISKEQDHIIIIPRGLSFSEATASNLVKVNIIGEVVDQGSTNLKIDHTGFSPHAAIYSTRPD
VKCVIHIHTLATAAVSSMKCGILPISQESLLLGDVAYYDYQGSLEEQEERIQLQKVLGPSCKVLVLRNHGVVALG
ETLEEAFHYIFNVQLACEIQVQALAGAGGVDNLHVLDFQKYKAFTYTVAASGGGGVNMGSHPKWKVGEIEFEGLM
RTLDNLGYRTGYAYRHPLIREKPRHKSDVEIPATVTAFSFEDDTMPLSPLQIHGTRGNKREKTRWLNSPNTYMKV
NVPEESRNGETSPRTKITWMKAEDSSKVSGGTPIQIEDPNQFVPLNTNPNEVLEKRNKIREQNRYDLKTAGPQSQ
LLAGIVVDKPPSTMQFEDDDHGPPAPPNPFSHLTEGELEEYKRTIERKQQGLEENHELFSKSFISMEVPVMVVNG
KDDMHDVEDELAKRVSRLSTSTTIENIEITIKSPEKIEEVLSPEGSPSKSPSKKKKKFRTPSFLKKNKKKEKVEA

FIGURE 480

CTTTCCGTCCCCTTGCTTCGTCTTCGCTTTTCTTTCTACTTATTCTTATCTGTGTCTTTCGCTTTGTTTGCCTCT
CCGTCTGTTTTCCCTCAGGGCCCCCTTCTTTCCTCGACCTTTTCAAATCGCAAA**ATG**GCGCCGGAGCGGCTGCG
GAGCCGGGCGCCCTCCGCCTTCAAGTTGCGGGGCTTGCTGCTCCGTGGTGAAGCTATTAAGTACCTCACAGAAGC
TCTTCAGTCTATCAGTGAATTAGAGCTTGAAGATAAACTGGAAAAGATAATTAATGCAGTTGAGAAGCAACCCTT
GTCATCAAACATGATTGAACGATCTGTGGTGGAAGCAGCAGTCCAGGAATGCAGTCAGTCTGTTGATGAAACTAT
AGAGCACGTTTTCAATATCATAGGAGCATTTGATATTCCACGCTTTGTGTACAATTCAGAAAGAAAAAAATTTCT
TCCTCTGTTAATGACCAACCACCCTGCACCAAATTTATTTGGAACACCAAGAGATAAAGCAGAGATGTTTCGTGA
GCGATATACCATTTTGCACCAGAGGACCCACAGGCATGAATTATTTACTCCTCCGGTGATAGGTTCTCACCCTGA
TGAAAGCGGAAGCAAATTCCAGCTTAAAACAATAGAAACCTTATTGGGTAGTACAACCAAAATCGGAGATGCGAT
TGTTCTTGGAATGATAACGCAGTTAAAAGAGGGAAAATTTTTTCTGGAAGATCCTACTGGAACAGTCCAACTAGA
CCTTAGTAAAGCTCAGTTCCATAGTGGTTTATACACAGAGGCATGCTTTGTCTTAGCAGAAGGTTGGTTTGAAGA
TCAAGTGTTTCATGTCAATGCCTTTGGATTTCCACCCACTGAGCCCTCTAGTACTACTAGGGCATACTATGGAAA
TATTAATTTTTTTGGAGGTCCTTCTAATACATCTGTGAAGACTTCTGCAAAACTAAAACAGCTAGAAGAGGAGAA
TAAAGATGCTATGTTTGTGTTTTATCTGATGTTTGGTTGGACCAGGTGGAAGTATTGGAAAAACTTCGCATAAT
GTTTGCTGGTTATTCACCAGCACCTCCAACCTGCTTTATTCTGTGTGGTAATTTTTCATCTGCACCATATGGAAA
AAATCAAGTTCAAGCTTTGAAAGATTCCCTAAAAACTTTGGCAGATATAATATGTGAATACCCAGATATTCACCA
AAGTCGTTTTGTGTTTGTACCTGGTCCAGAGGATCCTGGATTTGGTTCCATCTTACCAAGGCCACCACTTGCTGA
AAGCATCACTAATGAATTCAGACAAAGGGTACCATTTTCAGTTTTTACTACTAATCCTTGCAGAATTCAGTACTG
TACACAGGAAATTACTGTCTTCCGTGAAGACTTAGTAAATAAAATGTGCAGAAACTGCGTCCGTTTTCCTAGCAG
CAATTTGGCTATTCCTAATCACTTTGTAAAGACTATCTTATCCCAAGGACATCTGACTCCCCTACCTCTTTATGT
CTGCCCAGTGTATTGGGCATATGACTATGCTTTGAGAGTGTATCCTGTGCCCGATCTACTTGTCATTGCAGACAA
ATATGATCCTTTCACTACGACAAATACCGAATGCCTCTGCATAAACCCTGGCTCTTTTCCAAGAAGTGGATTTTC
ATTCAAAGTTTTTTATCCTTCTAATAAGACAGTAGAAGATAGCAAACTTCAAGGCTTT**TGA**GATTCTTAAAGATC
ATCTGAAGAAAATTCATCAGTTTTCTGCTTAACTCTATATCTTATGTGATTCTGATATTACAATAAAATTATGGT
AAACTTT

FIGURE 481

MAPERLRSRAPSAFKLRGLLLRGEAIKYLTEALQSISELELEDKLEKIINAVEKQPLSSNMIERSVVEAAVQECS
QSVDETIEHVFNIIGAFDIPRFVYNSERKKFLPLLMTNHPAPNLFGTPRDKAEMFRERYTILHQRTHRHELFTPP
VIGSHPDESGSKFQLKTIETLLGSTTKIGDAIVLGMITQLKEGKFFLEDPTGTVQLDLSKAQFHSGLYTEACFVL
AEGWFEDQVFHVNAFGFPPTEPSSTTRAYYGNINFFGGPSNTSVKTSAKLKQLEEENKDAMFVFLSDVWLDQVEV
LEKLRIMFAGYSPAPPTCFILCGNFSSAPYGKNQVQALKDSLKTLADIICEYPDIHQSRFVFVPGPEDPGFGSIL
PRPPLAESITNEFRQRVPFSVFTTNPCRIQYCTQEITVFREDLVNKMCRNCVRFPSSNLAIPNHFVKTILSQGHL
TPLPLYVCPVYWAYDYALRVYPVPDLLVIADKYDPFTTTNTECLCINPGSFPRSGFSFKVFYPSNKTVEDSKLQG
F

FIGURE 482

GGCGCGGGGACGCGGGTTTCTGCCTCAGGCCCTGCCCTGCTCTACTCTGCGCTCTCTGCCCGCGCCGCCGCCGCC
TCAGCCTCGGCCCTGCGCTGCGCGCCCGGCCCGTGCTGCC**ATG**GCCTGCCGCCCGCGAAGCCCGCCGAGGCATCA
GAGCCGCTGCGACGGTGACGCCAGCCCGCCGTCCCCGCGCGATGGAGCCTGGGACGGAAGCGCAGAGCCGACGG
CAGGCGCTGGAGGCCCGAAGACGCCGAGGAGGCAGAGCACCGCGGCGCCGAGCGCAGACCCGAGAGCTTTACCAC
TCCTGAAGGCCCTAAACCCCGTTCCAGATGCTCTGACTGGGCAAGTGCAGTTGAAGAAGATGAAATGAGGACCAG
AGTTAACAAAGAAATGGCAAGATATAAAAGGAAACTCCTCATCAATGACTTTGGAAGAGAGAGAAAATCATCATC
AGGAAGTTCTGATTCAAAGGAGTCTATGTCTACTGTGCCGGCTGACTTTGAGACAGATGAAAGTGTCCTAATGAG
GAGACAGAAGCAGATCAACTATGGGAAGAACACAATTGCCTACGATCGTTATATTAAAGAAGTCCCAAGACACCT
TCGACAACCTGGCATTCATCCCAAGACCCCTAATAAATTTAAGAAGTATAGTCGACGTTCATGGGACCAGCAAAT
CAAACTCTGGAAGGTGGCTCTGCATTTTTGGGATCCTCCAGCGGAAGAAGGATGTGATTTGCAAGAAATACACCC
TGTAGACCTTGAATCTGCAGAAAGCAGCTCCGAGCCCCAGACCAGCTCTCAGGATGACTTTGATGTGTACTCTGG
CACACCCACCAAGGTGAGACACATGGACAGTCAAGTGGAGGATGAGTTTGATTTGGAAGCTTGTTTAACTGAACC
CTTGAGAGACTTCTCAGCCATGAGC**TAA**CTGCCCCCTGGCGGCCAGGAAGAGAAACAGCTCCTCCCCGACTAGGT
GGAAGGCTGGCCAGGCACCAAGCATGTGTGTGCACTTGTACCTGGTGGTTTCTCTGTTAGCAGTCCATTAGCTCA
TGCTGAATTATTTTTGCCTTACTTTCTTAAGAAACATTAATTTTATGTATAGTGAGTATATTTTGCATGTTTTAA
ATTGTAAATGGAGCTAAGTCCAAGAAAGTACTTGAAGCTCTCTTCCAGCGAGCTTAATTGCGTAATCCCTGTTGT
CCTCCAGGGTAAGCTGACACGTCTACATAACTGGTTTTCCACAGGCATCTTCAGTTATTGCTTGTCAGGTGGACT
GTTTTGGATTTAACCATGTAATCCATGGGACCAATTGAGAGTCAGCTACTTTTATAGGCATCAAAGTATTCTCAG
ACACCTTTAATATCTTTATGGAAACTTAATTTTTGGCCTTTTATCAATATGTCATAACAGCATTCTGAAGTCAGA
CATTGTTAAATTGAGCTATTAAACTAATGAGTTTTATGTAAGTTATATGGTCTTAATTTGGTACTTGTAAATAGC
ACTAGTTAGACTCTTTAGAATACTCCAAGAGTTAGGGCAGCAGAGTGGAGCGATTTAGAAAGAACATTTTAAAAC
AATCAGTTAATTTACCATGTAAAATTGCTGTAAATGATAATGTGTACAGATTTTCTGTTCAAATATTCAATTGTA
AACTTCTTGTTAAGACTGTTACGTTTCTATTGCTTTTGTATGGGATATTGCAAAAATAAAAAGGAAAGAACCCTC
AAAAAAAAAAAAAAAAA

FIGURE 483

MACRPRSPPRHQSRCDGDASPPSPARWSLGRKRRADGRRWRPEDAEEAEHRGAERRPESFTTPEGPKPRSRCSDW
ASAVEEDEMRTRVNKEMARYKRKLLINDFGRERKSSSGSSDSKESMSTVPADFETDESVLMRRQKQINYGKNTIA
YDRYIKEVPRHLRQPGIHPKTPNKFKKYSRRSWDQQIKLWKVALHFWDPPAEEGCDLQEIHPVDLESAESSSEPQ
TSSQDDFDVYSGTPTKVRHMDSQVEDEFDLEACLTEPLRDFSAMS

FIGURE 484

ATTTAAATTCTGCAGCTCAGAGATTCACACAGAAGTCTGGACACAATTCAGAAGAGCCACCCAGAAGGAGACAAC
A**ATG**TCCCTGCTACCCGTGCCATACACAGAGGCTGCCTCTTTGTCTACTGGTTCTACTGTGACAATCAAAGGGCG
ACCACTTGCCTGTTTCTTGAATGAACCATATCTGCAGGTGGATTTCCACACTGAGATGAAGGAGGAATCAGACAT
TGTCTTCCATTTCCAAGTGTGCTTTGGTCGTCGTGTGGTCATGAACAGCCGTGAGTATGGGGCCTGGAAGCAGCA
GGTGGAATCCAAGAATATGCCCTTTCAGGATGGCCAAGAATTTGAACTGAGCATCTCAGTGCTGCCAGATAAGTA
CCAGGTAATGGTCAATGGCCAATCCTCTTACACCTTTGACCATAGAATCAAGCCTGAGGCTGTGAAGATGGTGCA
AGTGTGGAGAGATATCTCCCTGACCAAATTTAATGTCAGCTATTTAAAGAGA**TAA**CCAGACTTCATGTTGCCAAG
GAATCCCTGTCTCTACGTGAACTTGGGATTCCAAAGCCAGCTAACAGCATGATCTTTTCTCACTTCAATCCTTAC
TCCTGCTCATTAAAACTTAATCAAACTTCAAAAAAAAAAAA

FIGURE 485

MSLLPVPYTEAASLSTGSTVTIKGRPLACFLNEPYLQVDFHTEMKEESDIVFHFQVCFGRRVVMNSREYGAWKQQ
VESKNMPFQDGQEFELSISVLPDKYQVMVNGQSSYTFDHRIKPEAVKMVQVWRDISLTKFNVSYLKR

FIGURE 486

CTCGGCGCGCGCTTGGGGCGAGGCTCGGCGGGCGCGGACGCGCAGC**ATG**GCGGTGGAGGACGAGGGGCTCCGGGT
CTTCCAGAGCGTGAAGATCAAGATCGGTGAAGCCAAAAACCTTCCCTCTTACCCGGGGCCGAGCAAGATGAGGGA
TTGCTACTGCACGGTGAACCTGGACCAGGAGGAGGTTTTCAGGACCAAAATTGTGGAAAAGTCACTCTGCCCGTT
TTACGGAGAAGACTTTTACTGTGAAATTCCTCGGAGCTTTCGTCACCTGTCCTTCTACATTTTCGATAGAGACGT
TTTCCGGAGGGATTCCATCATAGGGAAGGTGGCCATCCAGAAGGAGGACTTGCAGAAGTACCACAACAGGGACAC
CTGGTTCCAGCTGCAGCACGTGGACGCTGACTCGGAAGTGCAGGGCAAAGTGCACCTGGAGCTGCGGCTGAGCGA
GGTCATCACAGACACTGGGGTCGTCTGCCACAAGCTCGCCACACGCATCGTCGAGTGCCAGGGCCTCCCCATCGT
GAATGGGCAATGTGACCCCTACGCCACCGTGACGCTGGCAGGACCCTTCAGATCAGAAGCAAAGAAGACGAAAGT
GAAGAGGAAGACCAACAATCCCCAGTTCGATGAAGTGTTTTATTTTGAGGTGACCCGGCCCTGTAGCTACAGCAA
GAAGTCCCACTTTGACTTTGAGGAGGAAGACGTGGACAAGCTCGAAATCAGAGTTGACCTCTGGAATGCCAGTAA
CCTGAAGTTTGGAGATGAATTCCTGGGAGAACTAAGGATCCCGTTGAAAGTCCTGCGGCAGTCCAGCTCCTACGA
GGCGTGGTACTTCCTCCAGCCCCGGGACAATGGTAGCAAGAGCCTAAAGCCAGACGACCTGGGCTCCCTGCGGCT
GAACGTGGTATACACGGAAGACCACGTGTTTTCTTCTGACTATTACAGCCCTCTGCGGGACCTGCTGTTGAAGTC
TGCGGATGTGGAGCCCGTGTCAGCGTCTGCGGCCCACATCCTGGGCGAGGTTTGCCGGGAGAAGCAGGAGGCGGC
CGTCCCGCTGGTGCGGCTCTTCCTACACTATGGCAGGGTGGTGCCATTCATCAGTGCCATCGCCAGCGCGGAGGT
GAAGCGGACCCAGGACCCCAACACCATCTTCCGAGGAAACTCACTGGCGTCCAAGTGCATTGACGAGACCATGAA
GCTGGCGGGGATGCATTACCTGCATGTCACCCTGAAGCCCGCCATCGAGGAGATATGCCAGAGCCACAAACCCTG
TGAAATCGACCCTGTGAAGTTGAAAGACGGAGAAAACCTTGAAAACAACATGGAGAACCTACGGCAGTATGTGGA
CCGCGTCTTCCACGCCATCACCGAGTCTGGGGTGAGCTGCCCGACCGTCATGTGTGACATCTTCTTCTCCCTCCG
GGAGGCGGCGGCCAAGCGCTTCCAGGATGACCCGGACGTCAGGTACACTGCAGTGAGCAGCTTCATCTTCCTGAG
GTTCTTTGCGCCCGCCATTCTCTCCCCCAACCTCTTCCAGCTCACGCCGCACCACACGGACCCCCAGACGTCCAG
GACGCTGACATTGATCTCCAAGACCGTTCAGACCCTCGGCAGCCTGTCCAAGTCCAAATCTGCGAGTTTTAAGGA
GTCCTACATGGCTACATTTTATGAATTCTTCAATGAGCAGAAATATGCTGATGCGGTGAAGAACTTCTTGGATCT
GATTTCGTCCTCGGGGAGAAGAGACCCCAAGAGTGTTGAGCAGCCCATCGTGCTTAAAGAAGGGTTCATGATCAA
GAGGGCCCAAGGACGGAAGCGCTTTGGGATGAAGAATTTTAAGAAGAGATGGTTTCGTTTGACCAACCATGAATT
TACCTACCACAAAAGCAAAGGGGACCAGCCTCTCTACAGCATTCCCATCGAGAACATCCTGGCAGTGGAGAAGCT
GGAGGAGGAGTCTTTCAAAATGAAAAACATGTTCCAGGTCATCCAGCCAGAGCGTGCGCTGTACATCCAGGCCAA
CAACTGCGTGGAGGCCAAGGACTGGATCGACATTCTCACCAAAGTGAGCCAGTGCAACCAGAAGCGCCTCACCGT
CTACCACCCGTCCGCCTACCTGAGCGGCCACTGGCTGTGCTGTAGGGCGCCATCCGACTCGGCTCCGGGCTGCTC
GCCCTGCACTGGCGGCCTCCCAGCCAACATCCAGCTGGACATTGATGGGGACCGTGAGACGGAGCGTATCTACTC
CCTCTTCAACTTGTACATGAGCAAGCTGGAGAAGATGCAGGAGGCCTGTGGGAGCAAATCTGTGTATGACGGCCC
GGAGCAGGAGGAGTATTCGACGTTCGTCATTGACGACCCCCAGGAGACCTACAAGACGCTAAAGCAAGTCATCCG
CTGGGTTGGGGCTTTGGAGCAGGAGCACGCCCAGTATAAGAGGGACAAGTTCAAGAAGACGAAATATGGAAGCCA
GGAGCACCCCATCGGAGACAAGAGCTTCCAGAACTACATCCGGCAGCAGTCCGAGACCTCCACTCATTCCATT**TA
A**AGTCTGCGGGACGCGCCC

FIGURE 487

MAVEDEGLRVFQSVKIKIGEAKNLPSYPGPSKMRDCYCTVNLDQEEVFRTKIVEKSLCPFYGEDFYCEIPRSFRH
LSFYIFDRDVFRRDSIIGKVAIQKEDLQKYHNRDTWFQLQHVDADSEVQGKVHLELRLSEVITDTGVVCHKLATR
IVECQGLPIVNGQCDPYATVTLAGPFRSEAKKTKVKRKTNNPQFDEVFYFEVTRPCSYSKKSHFDFEEEDVDKLE
IRVDLWNASNLKFGDEFLGELRIPLKVLRQSSSYEAWYFLQPRDNGSKSLKPDDLGSLRLNVVYTEDHVFSSDYY
SPLRDLLLKSADVEPVSASAAHILGEVCREKQEAAVPLVRLFLHYGRVVPFISAIASAEVKRTQDPNTIFRGNSL
ASKCIDETMKLAGMHYLHVTLKPAIEEICQSHKPCEIDPVKLKDGENLENNMENLRQYVDRVFHAITESGVSCPT
VMCDIFFSLREAAAKRFQDDPDVRYTAVSSFIFLRFFAPAILSPNLFQLTPHHTDPQTSRTLTLISKTVQTLGSL
SKSKSASFKESYMATFYEFFNEQKYADAVKNFLDLISSSGRRDPKSVEQPIVLKEGFMIKRAQGRKRFGMKNFKK
RWFRLTNHEFTYHKSKGDQPLYSIPIENILAVEKLEEESFKMKNMFQVIQPERALYIQANNCVEAKDWIDILTKV
SQCNQKRLTVYHPSAYLSGHWLCCRAPSDSAPGCSPCTGGLPANIQLDIDGDRETERIYSLFNLYMSKLEKMQEA
CGSKSVYDGPEQEEYSTFVIDDPQETYKTLKQVIRWVGALEQEHAQYKRDKFKKTKYGSQEHPIGDKSFQNYIRQ
QSETSTHSI

FIGURE 488

GCAGTGTCTCCCGGTCGCGCGTGGAGGTCGGTCGCTCAGAGCTGCTGGGCGCAGTTTCTCCGCCTGCTGCTTCGG
CGCGGCTGTATCGGCGAGCGAGCGAGTTCCCGCGAGTTCTCGGTGGCGCTCCCCCTTCCTTTCAGTCTCCACGGA
CTGGCCCCTCGTCCTTCTACTTGACCGCTCCCGTCTTCCGCCGCCTTCTGGCGCTTTCCGTTGGGCCGATTCCCG
CCCGCTTCCTCCTGCTTCCCATCGAAGCTCTAGAAATGAATGTTTCCATCTCTTCAGAGATGAACCAGATTATGA
TGCATCATTATCACAGAAGAAATTCGTGTCTATAGCTTTTAAGGACTTGATTACATCATTTTCAAGCCTGATAGT
TTTGGAATCACCATTAGAGCTTAAGACACACCTGCCTTCATTTCAACCACCTGTCTTCATACCCTGACGAAGTGC
ACCTTTTAACACTCCTTTGTCCTTGGATTACTTAAGAGTTCCCAGAAATACATTTGCCACCAACAGAGTAGCCAA
ATTTATAAGGAAAA**ATG**ATTCCCAATGGATATTTGATGTTTGAGGATGAAAATTTTATTGAGTCTTCTGTTGCCA
AATTAAATGCCCTGAGGAAAAGTGGCCAGTTCTGTGATGTTCGACTTCAGGTCTGTGGCCATGAAATGTTAGCAC
ACAGAGCAGTGCTAGCTTGCTGCAGTCCCTATTTATTTGAAATCTTTAATAGTGATAGTGATCCTCATGGAATTT
CTCACGTTAAATTTGATGATCTCAATCCAGAAGCTGTTGAAGTCTTGTTGAATTATGCCTACACTGCTCAGTTGA
AAGCAGATAAGAATTGTAAAGATGTTTATTCTGCAGCAAAAAAGCTGAAGATGGATCGAGTAAAGCAGGTTTGTG
GTGATTATTTACTGTCTAGAATGGATGTTACCAGCTGCATCTCTTACCGAAATTTTGCAAGTTGTATGGGAGACT
CCCGTTTGTTGAATAAGGTTGATGCTTATATTCAGGAGCATTTGTTACAAATTTCTGAAGAGGAGGAGTTTCTTA
AGCTTCCAAGGCTAAAGTTGGAGGTAATGCTTGAAGATAATGTTTGCTTGCCCAGCAATGGCAAATTATATACAA
AGGTAATCAACTGGGTGCAGCGTAGCATCTGGGAGAATGGAGACAGTCTGGAAGAGCTGATGGAAGAGGTTCAAA
CCTTGTACTACTCAGCTGATCACAAGCTGCTTGATGGGAACCTACTAGATGGACAGGCTGAGGTGTTTGGCAGTG
ATGATGACCACATTCAGTTTGTGCAGAAAAAGCCACCACGTGAGAATGGCCATAAGCAGATAAGTAGCAGTTCAA
CTGGATGTCTCTCTTCTCCAAATGCTACAGTACAAAGCCCTAAGCATGAGTGGAAAATCGTTGCTTCAGAAAAGA
CTTCAAATAACACTTACTTGTGCCTGGCTGTGCTGGATGGTATATTCTGTGTCATTTTTCTTCATGGGAGAAACA
GCCCACAGAGCTCACCAACAAGTACTCCAAAACTAAGTAAGAGTTTAAGCTTTGAGATGCAACAAGATGAGCTAA
TCGAAAAGCCCATGTCTCCTATGCAGTACGCACGATCTGGTCTGGGAACAGCAGAGATGAATGGCAAACTCATAG
CTGCAGGTGGCTATAACAGAGAGGAATGTCTTCGAACAGTCGAATGCTATAATCCACATACAGATCACTGGTCCT
TTCTTGCTCCCATGAGAACACCAAGAGCCCGATTTCAAATGGCTGTACTCATGGGCCAGCTCTATGTGGTAGGTG
GATCAAATGGCCACTCAGATGACCTGAGTTGTGGAGAGATGTATGATTCAAACATAGATGACTGGATTCCTGTTC
CAGAATTGAGAACTAACCGTTGTAATGCAGGAGTGTGTGCTCTGAATGGAAAGTTATACATCGTTGGTGGCTCTG
ATCCATATGGTCAAAAAGGACTGAAAAATTGTGATGTATTTGATCCTGTAACAAAGTTGTGGACAAGCTGTGCCC
CTCTTAACATTCGGAGACACCAGTCTGCAGTCTGTGAGCTTGGTGGTTATTTGTACATAATCGGAGGTGCAGAAT
CTTGGAATTGTCTGAACACAGTAGAACGATACAATCCTGAAAATAATACCTGGACTTTAATTGCACCCATGAATG
TGGCTAGGCGAGGAGCTGGAGTGGCTGTTCTTAATGGAAAACTGTTTGTATGTGGTGGCTTTGATGGTTCTCATG
CCATCAGTTGTGTGGAAATGTATGATCCAACTAGAAATGAATGGAAGATGATGGGAAATATGACTTCACCAAGGA
GCAATGCTGGGATTGCAACTGTAGGGAACACCATTTATGCAGTGGGAGGATTCGATGGCAATGAATTTCTGAATA
CGGTGGAAGTCTATAACCTTGAGTCAAATGAATGGAGCCCCTATACAAAGATTTTCCAGTTT**TAA**CAAATTTAAG
ACCCTCTCAAACTAACAGGCTTAGTGATGTAATTATGGTTAGTAGAGGTACACTTGTGAATAAAGAGGGTGGGTG
GGTATAGATGTTGCTAACAGCAACACAAAGCTTTTGCATATTGCATACTATTAAACATGCTGTACATACTTTTTG
GGTTTATTTGGAAAGGAATGCAAAGATGAAGGTCTGTTTTGTGTACTTTTAAGACTTTGGTTATTTTACTTTTTG
GAAAAGAATAAACCAAGAATTGATTGGGCACATCATTTCAAGAAGTCCCTCTCCTCCACATTTGTTTTGCCAATT
TGCACATTAATGACTCTTCCCCTCGT

FIGURE 489

MIPNGYLMFEDENFIESSVAKLNALRKSGQFCDVRLQVCGHEMLAHRAVLACCSPYLFEIFNSDSDPHGISHVKF
DDLNPEAVEVLLNYAYTAQLKADKNCKDVYSAAKKLKMDRVKQVCGDYLLSRMDVTSCISYRNFASCMGDSRLLN
KVDAYIQEHLLQISEEEEFLKLPRLKLEVMLEDNVCLPSNGKLYTKVINWVQRSIWENGDSLEELMEEVQTLYYS
ADHKLLDGNLLDGQAEVFGSDDDHIQFVQKKPPRENGHKQISSSSTGCLSSPNATVQSPKHEWKIVASEKTSNNT
YLCLAVLDGIFCVIFLHGRNSPQSSPTSTPKLSKSLSFEMQQDELIEKPMSPMQYARSGLGTAEMNGKLIAAGGY
NREECLRTVECYNPHTDHWSFLAPMRTPRARFQMAVLMGQLYVVGGSNGHSDDLSCGEMYDSNIDDWIPVPELRT
NRCNAGVCALNGKLYIVGGSDPYGQKGLKNCDVFDPVTKLWTSCAPLNIRRHQSAVCELGGYLYIIGGAESWNCL
NTVERYNPENNTWTLIAPMNVARRGAGVAVLNGKLFVCGGFDGSHAISCVEMYDPTRNEWKMMGNMTSPRSNAGI
ATVGNTIYAVGGFDGNEFLNTVEVYNLESNEWSPYTKIFQF

FIGURE 490A

GGCATGGAACCTAAAGACTAGAGGCGGTTGTGTGAGTCAGGAAGAGGGGCCAGATATCTGAGTGTTCCTCTTTAG
TTTCTTCAATTGCAGATAATATGGTGTCTAATTTTATGTTGTTCAGGAAAGACAGTGGTTCCTGACTCAGGAAGA
CAGTCTCAGAAAC**ATG**TGGAATGATATTGAGCTGCTAACAAATGATGATACCGGAAGTGGGTACCTGAGTGTCGG
TTCAAGAAAAGAACATGGAACTGCTTTATATCAAGTAGATTTGCTAGTGAAGATCTCTTCTGAAAAGGCCTCATT
AAATCCAAAGATACAGGCATGCAGCTTAAGTGATGGGTTTATTATTGTAGCCGACCAATCAGTGATATTGCTTGA
CAGTATTTGTAGATCACTTCAATTGCATCTTGTCTTTGATACTGAAGTGGATGTAGTTGGCCTTTGTCAAGAAGG
AAAGTTTCTTTTGGTTGGCGAGAGAAGTGGCAACCTACATCTTATTCATGTAACATCAAAACAAACACTACTCAC
TAATGCATTTGTTCAGAAAGCTAACGATGAAAATCGGCGGACTTACCAGAATCTTGTCATTGAGAAGGATGGTTC
AAATGAAGGTACCTATTATATGCTACTTCTTACATACAGTGGATTTTTTTGTATTACAAACCTTCAGCTTTTAAA
AATTCAACAAGCAATTGAGAATGTAGACTTCAGTACAGCAAAAAAGTTACAAGGACAAATCAAGTCCAGTTTTAT
TTCTACTGAAAATTATCATACTCTTGGTTGTCTCAGTCTTGTGGCTGGAGATTTAGCAAGTGAAGTTCCTGTGAT
AATTGGGGGAACCGGTAATTGTGCATTCTCAAAATGGGAACCAGATTCTTCCAAGAAAGGAATGACAGTTAAGAA
CCTTATTGATGCAGAGATTATTAAAGGTGCAAAGAAGTTCCAGCTGATAGACAATCTACTTTTTGTTCTTGATAC
TGATAACGTGCTGAGTTTATGGGATATTTACACTCTAACTCCTGTATGGAACTGGCCCTCTCTTCACGTAGAAGA
GTTTCTTCTTACTACAGAAGCAGACTCTCCTTCATCAGTCACGTGGCAAGGAATTACAAATCTCAAATTAATAGC
TCTGACAGCTTCAGCTAATAAGAAGATGAAAAACCTCATGGTTTATTCATTACCTACAATGGAAATACTATATTC
TTTGGAAGTATCTAGTGTTTCTTCTCTGGTCCAAACAGGAATTAGCACAGATACCATATACCTTTTAGAAGGAGT
TTGCAAAAATGATCCAAAATTGTCTGAAGACTCAGTCTCTGTGTTAGTACTCAGATGTCTTACGGAAGCTTTACC
AGAAAACAGATTGAGTCGGTTACTTCACAAACACAGATTTGCTGAAGCTGAGAGTTTTGCCATTCAGTTTGGACT
AGATGTTGAGCTTGTTTACAAGGTCAAGTCAAATCATATATTGGAGAAACTGGCATTGAGTTCTGTGGATGCCAG
TGAACAGACCGAATGGCAACAACTTGTAGACGACGCTAAGGAAAATCTACATAAGATCCAGGATGATGAATTTGT
GGTGAATTACTGCCTGAAAGCTCAGTGGATAACCTATGAAACCACTCAAGAGATGCTGAATTATGCCAAAACCAG
GCTTTTGAAGAAAGAAGATAAAACTGCTCTCATTTATTCTGATGGCTTGAAAGAGGTGCTAAGAGCTCATGCAAA
ATTGACTACTTTTTATGGAGCATTTGGACCAGAAAAATTCAGTGGCAGTTCTTGGATTGAATTTCTAAATAATGA
AGATGATCTTAAAGATATTTTTTACAGCTAAAAGAAGGAAACCTTGTTTGTGCACAGTATCTTTGGCTTCGACA
TCGGGCAAACTTTGAAAGCAGATTTGATGTGAAAATGCTGGAGAGCTTGCTCAACTCAATGTCTGCATCAGTCTC
TTTGCAAAAGCTGTGTCCATGGTTTAAAAATGATGTGATTCCATTTGTAAGAAGGACTGTGCCTGAAGGACAGAT
AATTCTTGCAAAATGGTTGGAACAAGCAGCCAGGAACCTTGAATTAACTGATAAGGCAAATTGGCCAGAAAATGG
ACTTCAATTGGCAGAGATATTTTTTACAGCAGAAAAAACAGACGAGTTGGGATTGGCATCTTCCTGGCATTGGAT
TTCCTTGAAAGATTATCAGAACACAGAGGAAGTATGTCAGCTAAGGACTTTGGTAAATAACTTGCGAGAGTTGAT
CACGTTGCATAGGAAGTACAACTGCAAATTAGCCCTCTCTGATTTTGAGAAGGAAAATACAACCACCATAGTGTT
CCGAATGTTTGATAAAGTGCTGGCCCCAGAGCTTATTCCCTCCATCTTAGAGAAGTTTATAAGAGTTTACATGAG
AGAACATGACTTGCAAGAGGAGGAACTTCTCTTGCTGTACATAGAGGATTTACTGAATAGATGCAGCTCAAAGTC
CACATCACTCTTTGAAACAGCATGGGAAGCAAAGGCCATGGCAGTAATAGCGTGTTTATCTGACACGGACCTCAT
ATTTGATGCCGTGCTCAAGATCATGTATGCGGCAGTGGTTCCTTGGAGTGCAGCTGTGGAGCAACTGGTGAAACA
GCACCTGGAAATGGACCATCCCAAAGTCAAGTTATTACAGGAAAGTTACAAACTAATGGAGATGAAAAAACTTTT
ACGAGGCTATGGAATAAGAGAGGTAAATCTCTTAAACAAGGAAATAATGAGAGTGGTTAGATACATTCTCAAACA
AGATGTCCCATCTTCTTTAGAAGATGCTTTAAAGGTAGCCCAAGCGTTTATGTTATCTGATGATGAGATCTACAG
TCTAAGAATTATTGACCTGATTGATAGAGAACAGGGTGAAGACTGTCTCCTTCTGTTGAAGTCTTTGCCTCCTGC
TGAAGCTGAGAAAACTGCAGAAAGAGTCATCATATGGGCACGACTGGCATTACAAGAAGAGCCAGATCATTCTAA
AGAGGGCAAGGCCTGGAGAATGTCTGTAGCGAAGACATCCGTGGACATTCTTAAGATACTATGTGACATTCAGAA
AGACAATCTGCAGAAGAAGGACGAATGTGAAGAAATGTTGAAACTATTTAAAGAGGTTGCTAGCTTACAGGAGAA
CTTTGAGGTCTTTCTTTCATTTGAAGATTATAGCAATAGTTCCCTGGTAGCAGATCTCCGTGAGCAGCACATTAA
AGCTCACGAAGTTGCACAGGCGAAACACAAACCTGGGAGCACCCCAGAGCCCATAGCTGCTGAGGTGAGGAGCCC
AAGCATGGAATCAAAGCTGCACAGACAGGCACTGGCCCTGCAGATGTCCAAACAAGAGCTGGAGGCAGAGCTGAC
CTTGAGAGCCTTAAAAGATGGGAACATCAAAACAGCACTGAAAAAATGCAGCGACTTGTTTAAGTATCACTGCAA
TGCTGACACTGGGAAATTGCTATTTCTGACATGTCAGAAGCTTTGTCAGATGTTGGCTGATAATGTCCCAGTGAC
AGTGCCTGTGGGACTGAATCTTCCTTCCATGATACATGATCTAGCAAGCCAAGCTGCCACCATTTGCAGTCCAGA

FIGURE 490B

```
TTTTTTACTAGATGCTTTAGAACTATGTAAACATACTTTAATGGCTGTAGAGCTTTCCAGACAATGCCAAATGGA
TGACTGTGGAATCCTCATGAAAGCTTCTTTTGGGACACATAAAGATCCATATGAAGAGTGGTCTTACAGTGACTT
CTTCAGTGAAGATGGAATTGTTCTTGAGTCACAGATGGTGCTTCCAGTGATTTATGAACTGATTTCATCTCTTGT
GCCTCTAGCTGAAAGCAAGAGATATCCCTTGGAGTCTACCAGTTTGCCATACTGCTCCCTTAATGAAGGAGATGG
CCTTGTTTTACCTGTTATAAATTCCATCTCTGCCCTGCTTCAGAATCTTCAGGAATCTAGCCAGTGGGAGCTAGC
CCTAAGATTTGTGGTTGGTTCATTTGGTACCTGTCTTCAGCACTCTGTGTCAAACTTCATGAATGCCACTTTGAG
TGAAAAGTTATTTGGAGAGACTACATTAGTTAAATCAAGGCATGTTGTTATGGAATTGAAAGAAAAAGCTGTTAT
ATTTATCAGGGAAAATGCTACAACACTACTGCACAAAGTATTTAATTGTCGCTTGGTAGATCTTGACCTGGCGTT
GGGTTACTGCACTCTCTTACCTCAAAAAGATGTGTTTGAAAATCTCTGGAAGCTCATAGATAAAGCATGGCAGAA
TTACGACAAAATCTTGGCAATATCTCTGGTGGGCTCTGAGCTGGCAAGTCTCTATCAGGAAATAGAAATGGGGCT
TAAGTTCCGTGAACTCAGTACTGATGCCCAGTGGGGCATTCGTCTTGGTAAACTTGGTATTTCTTTTCAACCAGT
TTTCAGGCAACATTTTCTCACCAAGAAAGACCTCATTAAAGCTCTTGTGGAGAATATAGATATGGACACAAGCCT
CATTTTGGAATATTGCAGCACATTTCAGTTGGACTGCGATGCAGTTCTTCAGCTCTTCATTGAAACGCTGCTCCA
CAACACAAATGCCGGCCAAGGCCAGGGAGATGCAAGCATGGACTCTGCAAAGCGGCGGCATCCCAAACTCCTGGC
CAAAGCCCTTGAGATGGTTCCTTTACTGACGAGCACAAAAGATTTGGTCATCAGTCTTAGTGGAATACTACATAA
GTTGGATCCTTATGACTATGAAATGATTGAAGTTGTCTTGAAAGTTATAGAACGAGCTGATGAAAAGATAACCAA
TATTAATATTAATCAGGCATTGAGTATTCTGAAACATTTGAAGTCATACAGAAGAATTTCTCCTCCCGTGGATCT
AGAATATCAGTATATGTTGGAACATGTCATAACTTTGCCATCAGCTGCCCAAACTAGACTGCCTTTTCACCTGAT
ATTCTTTGGCACAGCACAGAACTTCTGGAAAATTCTCTCTACAGAACTCAGTGAAGAATCTTTCCCAACATTGCT
CTTAATTTCGAAATTAATGAAGTTCTCTCTGGACACTCTGTACGTGTCTACAGCAAAACACGTTTTCGAAAAAAA
ACTGAAGCCAAAGCTCCTGAAGTTAACACAAGCTAAATCCTCAACACTGATTAACAAGGAAATAACTAAGATCAC
GCAGACCATCGAATCCTGCTTACTCTCTATAGTCAACCCAGAGTGGGCTGTAGCTATTGCCATCAGCCTTGCCCA
GGATATCCCTGAAGGTTCCTTCAAGATATCTGCTTTGAAATTCTGCCTTTATTTAGCTGAGAGATGGCTACAGAA
TATCCCATCGCAGGACGAAAAACGTGAAAAAGCCGAGGCTTTGTTGAAGAAGCTTCATATCCAGTACCGGCGATC
GGGCACAGAAGCTGTGCTCATAGCCCACAAGCTGAACACTGAGGAATATTTAAGAGTGATCGGAAAGCCAGCACA
TCTTATTGTCAGTCTCTACGAACATCCTAGCATCAATCAAAGAATTCAGAATTCATCTGGCACAGATTATCCTGA
TATTCATGCAGCAGCTAAAGAAATAGCCGAAGTCAATGAAATTAATTTGGAAAAAGTCTGGGACATGTTGTTGGA
AAAATGGCTATGCCCTTCAACAAAACCTGGTGAAAAACCATCAGAATTATTTGAACTTCAAGAAGATGAAGCCCT
ACGAAGAGTGCAGTATCTCCTCCTGTCTCGTCCAATTGATTATAGTTCAAGAATGCTGTTTGTATTTGCAACATC
AACTACAACCACATTAGGTATGCATCAGTTAACTTTTGCCCATAGAACTCGAGCTCTTCAGTGTCTCTTCTATTT
GGCTGACAAGGAAACTATAGAATCTCTCTTTAAAAAACCCATTGAAGAAGTGAAATCTTATTTGAGATGTATAAC
TTTTCTGGCATCATTTGAGACTTTGAATATCCCCATCACATATGAATTATTTTGCAGCAGTCCTAAAGAAGGAAT
GATTAAGGGTCTGTGGAAAAACCACAGCCACGAGTCCATGGCAGTAAGATTGGTGACTGAGCTGTGTTTAGAATA
CAAAATCTATGACCTGCAGCTTTGGAATGGACTCTTGCAAAAGCTTCTGGGCTTCAATATGATTCCTTATCTAAG
GAAAGTTTTAAAAGCCATCTCCAGTATCCATTCTTTATGGCAGGTTCCCTACTTCAGCAAAGCGTGGCAGCGTGT
GATACAGATACCACTGCTTTCAGCCTCTTGTCCTTTAAGTCCTGATCAGCTGTCAGATTGTTCTGAGAGTCTCAT
CGCTGTCCTCGAATGTCCAGTCTCAGGTGATCTTGACCTGATCGGAGTCGCCAGGCAGTATATCCAGTTAGAACT
TCCGGCTTTTGCATTAGCTTGTCTGATGCTCATGCCCCACTCAGAGAAAAGACACCAGCAAATTAAGAATTTTCT
GGGTTCCTGTGACCCTCAGGTTATTTAAAGCAATTGGAAGAGCATATGAACACGGGCCAGCTAGCAGGATTTTC
ACATCAAATTAGAAGTCTGATTTTGAATAATATCATCAATAAGAAGGAGTTTGGGATTTTGGCAAAGACCAAATA
CTTTCAAATGTTGAAGATGCATGCGATGAATACCAACAATATCACTGAGCTAGTGAACTATTGGCAAATGACTT
AAGTTTAGATGAAGCTTCAGTCTTGATAACTGAATATTCAAAGCACTGCGGGAAACCTGTGCCTCCAGACACTGC
TCCCTGTGAAATTCTGAAGATGTTTCTTAGTGGATTATCGTAAATCACTGAACCTTTTTTTCAAGAAGGACAAGA
ATTTTGGAGTCTGCTATTAATGGACCATATTTATTACAGTTTTTAAATTGTACAATCTCTGTATTATAGCTATTT
GTCTAACATTACCCCACATGTAATAAATAAACAATATGAGC
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FIGURE 491

MWNDIELLTNDDTGSGYLSVGSRKEHGTALYQVDLLVKISSEKASLNPKIQACSLSDGFIIVADQSVILLDSICR
SLQLHLVFDTEVDVVGLCQEGKFLLVGERSGNLHLIHVTSKQTLLLTNAFVQKANDENRRTYQNLVIEKDGSNEGT
YYMLLLTYSGFFCITNLQLLKIQQAIENVDFSTAKKLQGQIKSSFISTENYHTLGCLSLVAGDLASEVPVIIGGT
GNCAFSKWEPDSSKKGMTVKNLIDAEIIKGAKKFQLIDNLLFVLDTDNVLSLWDIYTLTPVWNWPSLHVEEFLLT
TEADSPSSVTWQGITNLKLIALTASANKKMKNLMVYSLPTMEILYSLEVSSVSSLVQTGISTDTIYLLEGVCKND
PKLSEDSVSVLVLRCLTEALPENRLSRLLHKHRFAEAESFAIQFGLDVELVYKVKSNHILEKLALSSVDASEQTE
WQQLVDDAKENLHKIQDDEFVVNYCLKAQWITYETTQEMLNYAKTRLLKKEDKTALIYSDGLKEVLRAHAKLTTF
YGAFGPEKFSGSSWIEFLNNEDDLKDIFLQLKEGNLVCAQYLWLRHRANFESRFDVKMLESLLNSMSASVSLQKL
CPWFKNDVIPFVRRTVPEGQIILAKWLEQAARNLELTDKANWPENGLQLAEIFFTAEKTDELGLASSWHWISLKD
YQNTEEVCQLRTLVNNLRELITLHRKYNCKLALSDFEKENTTTIVFRMFDKVLAPELIPSILEKFIRVYMREHDL
QEEELLLLYIEDLLNRCSSKSTSLFETAWEAKAMAVIACLSDTDLIFDAVLKIMYAAVVPWSAAVEQLVKQHLEM
DHPKVKLLQESYKLMEMKKLLRGYGIREVNLLNKEIMRVVRYILKQDVPSSLEDALKVAQAFMLSDDEIYSLRII
DLIDREQGEDCLLLLKSLPPAEAEKTAERVIIWARLALQEEPDHSKEGKAWRMSVAKTSVDILKILCDIQKDNLQ
KKDECEEMLKLFKEVASLQENFEVFLSFEDYSNSSLVADLREQHIKAHEVAQAKHKPGSTPEPIAAEVRSPSMES
KLHRQALALQMSKQELEAELTLRALKDGNIKTALKKCSDLFKYHCNADTGKLLFLTCQKLCQMLADNVPVTVPVG
LNLPSMIHDLASQAATICSPDFLLDALELCKHTLMAVELSRQCQMDDCGILMKASFGTHKDPYEEWSYSDFFSED
GIVLESQMVLPVIYELISSLVPLAESKRYPLESTSLPYCSLNEGDGLVLPVINSISALLQNLQESSQWELALRFV
VGSFGTCLQHSVSNFMNATLSEKLFGETTLVKSRHVVMELKEKAVIFIRENATTLLHKVFNCRLVDLDLALGYCT
LLPQKDVFENLWKLIDKAWQNYDKILAISLVGSELASLYQEIEMGLKFRELSTDAQWGIRLGKLGISFQPVFRQH
FLTKKDLIKALVENIDMDTSLILEYCSTFQLDCDAVLQLFIETLLHNTNAGQGQGDASMDSAKRRHPKLLAKALE
MVPLLTSTKDLVISLSGILHKLDPYDYEMIEVVLKVIERADEKITNININQALSILKHLKSYRRISPPVDLEYQY
MLEHVITLPSAAQTRLPFHLIFFGTAQNFWKILSTELSEESFPTLLLISKLMKFSLDTLYVSTAKHVFEKKLKPK
LLKLTQAKSSTLINKEITKITQTIESCLLSIVNPEWAVAIAISLAQDIPEGSFKISALKFCLYLAERWLQNIPSQ
DEKREKAEALLKKLHIQYRRSGTEAVLIAHKLNTEEYLRVIGKPAHLIVSLYEHPSINQRIQNSSGTDYPDIHAA
AKEIAEVNEINLEKVWDMLLEKWLCPSTKPGEKPSELFELQEDEALRRVQYLLLSRPIDYSSRMLFVFATSTTTT
LGMHQLTFAHRTRALQCLFYLADKETIESLFKKPIEEVKSYLRCITFLASFETLNIPITYELFCSSPKEGMIKGL
WKNHSHESMAVRLVTELCLEYKIYDLQLWNGLLQKLLGFNMIPYLRKVLK

FIGURE 492

GAGAGACTGGATGGACCCACAAGGGTGACAGCCCAGGCGGACCGATCTTCCCATCCCACATCCTCCGGCGCGATG
CCAAAAAGAGGCTGACGGCAACTGGGCCTTCTGCAGAGAAAGACCTCCGCTTCACTGCCCCGGCTGGTCCCAAGG
GTCAGGAAG**ATG**GATTCATACCTGCTGATGTGGGGACTGCTCACGTTCATCATGGTGCCTGGCTGCCAGGCAGAG
CTCTGTGACGATGACCCGCCAGAGATCCCACACGCCACATTCAAAGCCATGGCCTACAAGGAAGGAACCATGTTG
AACTGTGAATGCAAGAGAGGTTTCCGCAGAATAAAAAGCGGGTCACTCTATATGCTCTGTACAGGAAACTCTAGC
CACTCGTCCTGGGACAACCAATGTCAATGCACAAGCTCTGCCACTCGGAACACAACGAAACAAGTGACACCTCAA
CCTGAAGAACAGAAAGAAAGGAAAACCACAGAAATGCAAAGTCCAATGCAGCCAGTGGACCAAGCGAGCCTTCCA
GGTCACTGCAGGGAACCTCCACCATGGGAAAATGAAGCCACAGAGAGAATTTATCATTTCGTGGTGGGGCAGATG
GTTTATTATCAGTGCGTCCAGGGATACAGGGCTCTACACAGAGGTCCTGCTGAGAGCGTCTGCAAAATGACCCAC
GGGAAGACAAGGTGGACCCAGCCCCAGCTCATATGCACAGGTGAAATGGAGACCAGTCAGTTTCCAGGTGAAGAG
AAGCCTCAGGCAAGCCCCGAAGGCCGTCCTGAGAGTGAGACTTCCTGCCTCGTCACAACAACAGATTTTCAAATA
CAGACAGAAATGGCTGCAACCATGGAGACGTCCATATTTACAACAGAGTACCAGGTAGCAGTGGCCGGCTGTGTT
TTCCTGCTGATCAGCGTCCTCCTCCTGAGTGGGCTCACCTGGCAGCGGAGACAGAGGAAGAGTAGAAGAACAATC
TAGAAAACCAAAAGAACAAGAATTTCTTGGTAAGAAGCCGGGAACAGACAACAGAAGTCATGAAGCCCAAGTGAA
ATCAAAGGTGCTAAATGGTCGCCCAGGAGACATCCGTTGTGCTTGCCTGCGTTTTGGAAGCTCTGAAGTCACATC
ACAGGACACGGGGCAGTGGCAACCTTGTCTCTATGCCAGCTCAGTCCCATCAGAGAGCGAGCGCTACCCACTTCT
AAATAGCAATTTCGCCGTTGAAGAGGAAGGGCAAAACCACTAGAACTCTCCATCTTATTTTCATGTATATGTGTT
CATTAAAGCATGAATGGTATGGAACTCTCTCCACCCTATATGTAGTATAAAGAAAAGTAGGTTTACATTCATCTC
ATTCCAACTTCCCAGTTCAGGAGTCCCAAGGAAAGCCCCAGCACTAACGTAAATACACAACACACACTCTACC
CTATACAACTGGACATTGTCTGCGTGGTTCCTTTCTCAGCCGCTTCTGACTGCTGATTCTCCCGTTCACGTTGCC
TAATAAACATCCTTCAAGAACTCTGGGCTGCTACCCAGAAATCATTTTACCCTTGGCTCAATCCTCTAAGCTAAC
CCCCTTCTACTGAGCCTTCAGTCTTGAATTTCTAAAAAACAGAGGCCATGGCAGAATAATCTTTGGGTAACTTCA
AAACGGGGCAGCCAAACCCATGAGGCAATGTCAGGAACAGAAGGATGAATGAGGTCCCAGGCAGAGAATCATACT
TAGCAAAGTTTTACCTGTGCGTTACTAATTGGCCTCTTTAAGAGTTAGTTTCTTTGGGATTGCTATGAATGATAC
CCTGAATTTGGCCTGCACTAATTTGATGTTTACAGGTGGACACACAAGGTGCAAATCAATGCGTACGTTTCCTGA
GAAGTGTCTAAAAACACCAAAAAGGGATCCGTACATTCAATGTTTATGCAAGGAAGGAAAGAAAGAAGGAAGTGA
AGAGGGAGAAGGGATGGAGGTCACACTGGTAGAACGTAACCACGGAAAAGAGCGCATCAGGCCTGGCACGGTGGC
TCAGGCCTATAACCCCAGCTCCCTAGGAGACCAAGGCGGGAGCATCTCTTGAGGCCAGGAGTTTGAGACCAGCCT
GGGCAGCATAGCAAGACACATCCCTACAAAAAATTAGAAATTGGCTGGATGTGGTGGCATACGCCTGTAGTCCTA
GCCACTCAGGAGGCTGAGGCAGGAGGATTGCTTGAGCCCAGGAGTTCGAGGCTGCAGTCAGTCATGATGGCACCA
CTGCACTCCAGCCTGGGCAACAGAGCAAGATCCTGTCTTTAAGGAAAAAAAGACAAGG

FIGURE 493

MDSYLLMWGLLTFIMVPGCQAELCDDDPPEIPHATFKAMAYKEGTMLNCECKRGFRRIKSGSLYMLCTGNSSHSS
WDNQCQCTSSATRNTTKQVTPQPEEQKERKTTEMQSPMQPVDQASLPGHCREPPPWENEATERIYHFVVGQMVYY
QCVQGYRALHRGPAESVCKMTHGKTRWTQPQLICTGEMETSQFPGEEKPQASPEGRPESETSCLVTTTDFQIQTE
MAATMETSIFTTEYQVAVAGCVFLLISVLLLSGLTWQRRQRKSRRTI

FIGURE 494

AGCTCAGCAGGACCTCAGCC**ATG**AGACTTCTCATCCTGGCCCTCCTTGGCATCTGCTCTCTCACTGCATACATTG
TGGAAGGTGTAGGGAGTGAAGTCTCAGATAAGAGGACCTGTGTGAGCCTCACTACCCAGCGACTGCCGGTTAGCA
GAATCAAGACCTACACCATCACGGAAGGCTCCTTGAGAGCAGTAATTTTTATTACCAAACGTGGCCTAAAAGTCT
GTGCTGATCCACAAGCCACATGGGTGAGAGACGTGGTCAGGAGCATGGACAGGAAATCCAACACCAGAAATAACA
TGATCCAGACCAAGCCAACAGGAACCCAGCAATCGACCAATACAGCTGTGACTCTGACTGGC**TAG**TAGTCTCTGG
CACCCTGTCCGTCTCCAGCCAGCCAGCTCATTTCACTTTACACGCTCATGGACTGAGTTTATACTCACCTTTTAT
GAAAGCACTGCATGAATAAAATTATTCCTTTGTATTTTTACTTTTAAATGTCTTCTGTATTCACTTATATGTTCT
AATTAATAAATTATTTATTATTAAGAATAGTTCCCTAGTCTATTCATTATATTTAGGGAAAGGTAGTGTATCATT
GTTGTTTGATTTCTGACCTTGTACCTCTCTTTGATGGTAACCATAATGGAAGAGATTCTGGCTAGTGTCTATCAG
AGGTGAAAGCTATATCAATCTCTCTTAGAGTCCAGCTTGTAATGGTTCTTTACACATCAGTCACAAGTTACAGCT
GTGACAATGGCAACAATTTGAGATGTATTTCAACTTGTCTCTATAATAGAATTCTGTTTATAGAATAAGGGAGAA
AATAATCCAGTCTTCACTGGGTTCCCATTCTGAGGGTCCACTACTCAAAAATTTGCTTCACTCAATTTTTTTCAC
CTCTTTGTGTTTTATTTTGGTGTCCTATTAAAGGAATAAAATGACACAACTTGTCCCTTTTTTGTCCCATTAGCA
AAAATTAGAATTTTGGTATAAAGAAACTTTATTCAAGTAAAAATCAATACCCTTTGAATTGGACAATAATCTCAC
TACCTTATTAGGATTTCTGTATTTGCCATTACGCTAGTTATCATGCATGTTATGCTTTACTGCGAATAAGCTTTT
AATGCTCCAAATGCTGACCCATGCAATATTTCCTCATGTGATCACAATTTGCAGTAAACTTTTAATTAAATGCTC
ATCTGGTAACTCAACACCCCAG

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FIGURE 495

MRLLILALLGICSLTAYIVEGVGSEVSDKRTCVSLTTQRLPVSRIKTYTITEGSLRAVIFITKRGLKVCADPQAT
WVRDVVRSMDRKSNTRNNMIQTKPTGTQQSTNTAVTLTG

FIGURE 496A

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ATTGCTAAGCCATCCTTCAGACAGAGAGGGAGCGGCTGCAAGAGGTAATGAGAGATGGCAAGAAAGAAGCTGAAA
AAATTTACTACTTTGGAGATTGTGCTCAGTGTTCTTCTGCTTGTGTTGTTTATCATCAGTATTGTTCTAATTGTG
CTTTTAGCCAAAGAGTCACTGAAATCAACAGCCCCAGATCCTGGGACAACTGGTACCCCGGATCCTGGGACAACT
GGTACCCCAGATCCTGGAACAACTGGTACCACACATGCTAGGACAACGGGTCCCCCAGATCCTGGAACAACTGGT
ACCACTCCTGTTTCTGCTGAATGTCCAGTGGTAAATGAATTGGAACGAATTAATTGCATCCCTGACCAGCCGCCA
ACAAAGGCCACATGTGACCAACGTGGCTGTTGCTGGAATCCCCAGGGAGCTGTAAGTGTTCCCTGGTGCTACTAT
TCCAAGAATCATAGCTACCATGTAGAGGGCAACCTTGTCAACACAAATGCAGGATTCACAGCCCGGTTGAAAAAT
CTGCCTTCCTCACCAGTGTTTGGAAGCAATGTTGACAATGTTCTTCTCACAGCAGAATATCAGACATCTAATCGT
TTCCACTTTAAGTTGACTGACCAAACCAATAACAGGTTTGAAGTGCCCCACGAACACGTGCAGTCCTTCAGTGGA
AATGCTGCTGCTTCTTTGACCTACCAAGTTGAAATCTCCAGACAGCCATTTAGCATCAAAGTGACCAGAAGAAGC
AACAATCGTGTTTTGTTTGACTCGAGCATTGGGCCCCTACTGTTTGCTGACCAGTTCTTGCAGCTCTCCACTCGA
CTGCCTAGCACTAACGTGTATGGCCTGGGAGAGCATGTGCACCAGCAGTATCGGCATGATATGAATTGGAAGACC
TGGCCCATATTTAACAGAGACACAACTCCCAATGGAAACGGAACTAATTTGTATGGTGCGCAGACATTCTTCTTG
TGCCTTGAAGATGCTAGTGGATTGTCCTTTGGGGTGTTTCTGATGAACAGCAATGCCATGGAGGTTGTCCTTCAG
CCTGCGCCAGCCATCACTTACCGCACCATTGGGGGCATTCTCGACTTCTATGTGTTCTTGGGAAACACTCCAGAG
CAAGTTGTTCAAGAATATCTAGAGCTCATTGGGCGGCCAGCCCTTCCCTCCTACTGGGCGCTTGGATTTCACCTC
AGTCGTTACGAATATGGAACCTTAGACAACATGAGGGAAGTCGTGGAGAGAAATCGCGCAGCACAGCTCCCTTAT
GATGTTCAGCATGCTGATATTGATTATATGGATGAGAGAAGGGACTTCACTTATGATTCAGTGGATTTTAAAGGC
TTCCCTGAATTTGTCAACGAGTTACACAATAATGGACAGAAGCTTGTCATCATTGTGGATCCAGCCATCTCCAAC
AACTCTTCCTCAAGTAAACCCTATGGCCCATATGACAGGGGTTCGGATATGAAGATATGGGTGAATAGTTCAGAT
GGAGTGACTCCACTCATTGGGGAGGTCTGGCCTGGACAAACTGTGTTTCCTGATTATACCAATCCCAACTGTGCT
GTTTGGTGGACAAAGGAATTTGAGCTTTTTCACAATCAAGTAGAGTTTGATGGAATCTGGATTGATATGAATGAA
GTCTCCAACTTTGTTGATGGTTCGGTCTCAGGATGTTCCACAAACAACCTAAATAATCCCCCATTCACTCCCAGA
ATCCTGGATGGGTACCTGTTCTGCAAGACTCTCTGTATGGATGCAGTGCAGCACTGGGGCAAGCAGTATGACATT
CACAATCTGTATGGCTACTCCATGGCGGTCGCCACAGCAGAAGCTGCCAAGACTGTGTTCCCTAATAAGAGAAGC
TTCATTCTGACCCGTTCTACCTTTGCGGGCTCTGGCAAGTTTGCAGCACATTGGTTAGGAGACAACACTGCCACC
TGGGATGACCTGAGATGGTCCATCCCTGGCGTGCTTGAGTTCAACCTTTTTGGCATCCCAATGGTGGGTCCTGAC
ATATGTGGCTTTGCTTTGGACACCCCTGAGGAGCTCTGTAGGCGGTGGATGCAGTTGGGTGCATTTATCCGTTT
TCTAGAAATCACAATGGCCAAGGCTACAAGGACCAGGATCCTGCCTCCTTTGGAGCTGACTCCCTGCTGTTGAAT
TCCTCCAGGCACTACCTTAACATCCGCTATACTCTATTGCCCTACCTATACACCCTTTTCTTCCGTGCTCACAGC
CGAGGGGACACGGTGGCCAGGCCCCTTTTGCATGAGTTCTACGAGGACAACAGCACTTGGGATGTGCACCAACAG
TTCTTATGGGGGCCCGGCCTCCTCATCACTCCAGTTCTGGATGAAGGTGCAGAGAAAGCGATGGCATATGTGCCT
GATGCTGTCTGGTATGACTACGAGACTGGGAGCCAAGTGAGATGGAGGAAGCAAAAAGTCGAGATGGAACTTCCT
GGAGACAAAATTGGACTTCACCTTCGAGGAGGCTACATCTTCCCCACACAGCAGCCAAATACAACCACTCTGGCC
AGTCGAAAGAACCCTCTTGGTCTTATCATTGCCCTAGATGAGAACAAAGAAGCAAAAGGAGAACTTTTCTGGGAT
GATGGGGAAACGAAGGATACTGTGGCCAATAAAGTGTATCTTTATGTGAGTTTTCTGTCACTCAAAACCGCTTG
GAGGTGAATATTTCACAATCAACCTACAAGGACCCCAATAATTTAGCATTTAATGAGATTAAAATTCTTGGGACG
GAGGAACCTAGCAATGTTACAGTGAAACACAATGGTGTCCCAAGTCAGACTTCTCCTACAGTCACTTATGATTCT
AACCTGAAGGTTGCCATTATCACAGATATTGATCTTCTCCTGGGAGAAGCATACACAGTGGAATGGAGCATAAAG
ATAAGGGATGAAGAAAAAATAGACTGTTACCCTGATGAGAATGGTGCTTCTGCCGAAACTGCACTGCCCGTGGC
TGTATCTGGGAGGCATCCAATTCTTCTGGAGTCCCTTTTTGCTATTTTGTCAACGACCTATACTCTGTCAGTGAT
GTTCAGTATAATTCCCATGGGGCCACAGCTGACATCTCCTTAAAGTCTTCCGTTTATGCCAATGCCTTCCCCTCC
ACACCCGTGAACCCCCTTCGCCTGGATGTCACTTACCATAAGAATGAAATGCCGCAGTTCAAGATTTATGATCCC
AACAAGAATCGGTATGAAGTTCCAGTCCCTCTGAACATACCCAGCATGCCATCCAGCACCCCTGAGGGTCAACTC
TATGATGTGCTCATTAAGAAGAATCCATTTGGGATTGAAATTCGCCGGAAGAGTATAGGCACTATAATTTGGGAC
TCTCAGCTCCTTGGCTTTACCTTCAGTGACATGTTTATCCGCATCTCCACCCGCCTTCCCTCCAAGTACCTCTAT
GGCTTCGGGGGAAACTGAGCACAGGTCCTATAGGAGAGACTTGGAGTGGCACACTTGGGGGATGTTCTCCCGAGAC
CAGCCCCCAGGGTACAAGAAGAATTCCTATGGTGTCCACCCCTACTACATGGGGCTGGAGGAGGACGGCAGTGCC
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FIGURE 496B

CATGGAGTGCTCCTGCTGAACAGCAATGCCATGGATGTGACGTTCCAGCCCCTGCCTGCCTTGACATACCGCACC
ACAGGGGGAGTTCTGGACTTTTATGTGTTCTTGGGGCCGACTCCAGAGCTTGTCACCCAGCAGTACACTGAGTTG
ATTGGCCGGCCTGTGATGGTACCTTACTGGTCTTTGGGGTTCCAGCTGTGTCGCTATGGCTACCAGAATGACTCT
GAGATCGCCAGCTTGTATGATGAGATGGTGGCTGCCCAGATCCCTTATGATGTGCAGTACTCAGACATCGACTAC
ATGGAGCGGCAGCTGGACTTCACCCTCAGCCCCAAGTTTGCTGGGTTTCCAGCTCTGATCAATCGCATGAAGGCT
GATGGGATGCGGGTCATCCTCATTCTGGATCCAGCCATTTCTGGCAATGAGACACAGCCTTATCCTGCCTTCACT
CGGGGCGTGGAGGATGACGTCTTCATCAAATACCCAAATGATGGAGACATTGTCTGGGGAAAGGTCTGGCCTGAT
TTTCCTGATGTTGTTGTGAATGGGTCTCTAGACTGGGACAGCCAAGTGGAGCTATATCGAGCTTATGTGGCCTTC
CCAGACTTTTTCCGTAATTCAACTGCCAAGTGGTGGAAGAGGGAAATAGAAGAACTATACAACAATCCACAGAAT
CCAGAGAGGAGCTTGAAGTTTGATGGCATGTGGATTGATATGAATGAACCATCAAGCTTCGTGAATGGGGCAGTT
TCTCCAGGCTGCAGGGACGCCTCTCTGAACCACCCTCCCTACATGCCACATTTGGAGTCCAGGGACAGGGGCCTG
AGCAGCAAGACCCTTTGTATGGAGAGTCAGCAGATCCTCCCAGACGGCTCCCTGGTGCAGCACTACAACGTGCAC
AACCTGTATGGGTGGTCCCAGACCAGACCCACATACGAAGCCGTGCAGGAGGTGACGGGACAGCGAGGGGTCGTC
ATCACCCGCTCCACATTTCCCTCTTCTGGCCGCTGGGCAGGACATTGGCTGGGAGACAACACGGCCGCATGGGAT
CAGCTGAAGAAGTCTATCATTGGCATGACGGAGTTCAGCCTCTTCGGCATATCCTATACGGGAGCAGATATCTGT
GGGTTCTTTCAAGATGCTGAATATGAGATGTGTGTTCGCTGGATGCAGCTGGGGGCCTTTTACCCCTTCTCAAGA
AACCACAACACCATTGGGACCAGGAGACAAGACCCTGTGTCCTGGGATGTTGCTTTTGTGAATATTTCCAGAACT
GTCCTGCAGACCAGATGCACCCTGTTGCCATATCTGTATACCTTGATGCATAAGGCCCACACGGAGGGCGTCACT
GTTGTGCGGCCTCTGCTCCATGAATTTGTGTCAGACCAGGTGACATGGGACATAGACAGTCAGTTCCTGCTGGGC
CCAGCCTTCCTGGTCAGCCCTGTCCTGGAGCGTAATGCCAGAAATGTCACTGCATATTTCCCTAGAGCCCGCTGG
TATGATTACTACACGGGTGTGGATATTAATGCAAGAGGAGAGTGGAAGACCTTGCCAGCCCCTCTTGACCACATT
AATCTTCATGTCCGTGGGGGCTACATCCTGCCCTGGCAAGAGCCTGCACTGAACACCCACTTAAGCCGCCAGAAA
TTCATGGGCTTCAAAATTGCCTTGGATGATGAAGGAACTGCTGGGGGCTGGCTCTTCTGGGATGATGGGCAAAGC
ATTGATACCTATGGGAAAGGACTCTATTACTTGGCCAGCTTTTCTGCCAGCCAGAATACGATGCAAAGCCATATA
ATTTTCAACAATTACATCACTGGTACAAATCCTTTGAAACTGGGCTACATTGAAATCTGGGGAGTGGGCAGTGTC
CCCGTTACCAGTGCCAGCATCTCTGTGAGTGGCATGGTCATAACACCCTCCTTCAACAATGACCCCACGACACAG
GTATTAAGCATCGATGTGACTGACAGAAACATCAGCCTACATAATTTTACTTCATTGACGTGGATAAGCACTCTG
TGAATTTTTACAGCAAGATTCTAACTAACTATGAATGACTTTGAAACTACTTATACTTCATACTCATAAAAATTA
TTGTGTGTTGCTAATTTGTTCATACCCACTATTGGTGAAATATTTCTGTTAATTTTGTTATATGTTTTTTGTGTG
AACCCTAAAGGTTAAACCTTAGCCCTGTGGGATAGGCAGTTAGGGAGGTGTGGAAAATCTATGCATTACCTTAAT
GTCTCTGTGTGGTTAGTATGGTAGTGACTGTTCATCATATGACATTTACTGAAGATGAACTGGGTCCATGATGAA
GTGTGTGTATGTCCACGTTTGTAATCATAGAATGGACCCCATTCTTTTGTTAAATACACAAGAGAAAGCTTTCTG
TGACAGTTCCAGGTCTTGAAGCTAATCAGCATCTCAAGAAAGTATCCAGAAAGAACATCTGCTAGTTGGTTATAG
GCGGTGGGAGGAATAATATACCTAATTGGTTATAGGTGGGGGGAGCATGATAAGCAAAGAAAAGGCAAACACAAG
GAAAGATCAGATGAAACAGAAGATGATAGTAAAAGTGATCCTAAGTAAGAACATAATGTAAAATTGTCAGCAGCC
TCATGGGGAGGAAAAAGGAAGAGTCAACTCACTTGAAGAAGAGGGTCTTGAGAAATCCTTAGCATAAAGGGCTAC
TGGTGAGATTGAGATCTGAGCAGGCAAAGCTCAAAAGAGAGTTTGGAGGTTAAAAATAATTTATTTTTGCAGTAG
TGTGCTTTGAAATGTGTAAATCTTATTTCTAATGTATACAACCACATTTCACATAAAAATATGCAATTTATATGC
CAGATAAAAATAAAACAAGTGAATTTGCAAGTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 497

MARKKLKKFTTLEIVLSVLLLVLFIISIVLIVLLAKESLKSTAPDPGTTGTPDPGTTGTPDPGTTGTTHARTTGP
PDPGTTGTTPVSAECPVVNELERINCIPDQPPTKATCDQRGCCWNPQGAVSVPWCYYSKNHSYHVEGNLVNTNAG
FTARLKNLPSSPVFGSNVDNVLLTAEYQTSNRFHFKLTDQTNNRFEVPHEHVQSFSGNAAASLTYQVEISRQPFS
IKVTRRSNNRVLFDSSIGPLLFADQFLQLSTRLPSTNVYGLGEHVHQQYRHDMNWKTWPIFNRDTTPNGNGTNLY
GAQTFFLCLEDASGLSFGVFLMNSNAMEVVLQPAPAITYRTIGGILDFYVFLGNTPEQVVQEYLELIGRPALPSY
WALGFHLSRYEYGTLDNMREVVERNRAAQLPYDVQHADIDYMDERRDFTYDSVDFKGFPEFVNELHNNGQKLVII
VDPAISNNSSSSKPYGPYDRGSDMKIWVNSSDGVTPLIGEVWPGQTVFPDYTNPNCAVWWTKEFELFHNQVEFDG
IWIDMNEVSNFVDGSVSGCSTNNLNNPPFTPRILDGYLFCKTLCMDAVQHWGKQYDIHNLYGYSMAVATAEAAKT
VFPNKRSFILTRSTFAGSGKFAAHWLGDNTATWDDLRWSIPGVLEFNLFGIPMVGPDICGFALDTPEELCRRWMQ
LGAFYPFSRNHNGQGYKDQDPASFGADSLLLNSSRHYLNIRYTLLPYLYTLFFRAHSRGDTVARPLLHEFYEDNS
TWDVHQQFLWGPGLLITPVLDEGAEKAMAYVPDAVWYDYETGSQVRWRKQKVEMELPGDKIGLHLRGGYIFPTQQ
PNTTTLASRKNPLGLIIALDENKEAKGELFWDDGETKDTVANKVYLLCEFSVTQNRLEVNISQSTYKDPNNLAFN
EIKILGTEEPSNVTVKHNGVPSQTSPTVTYDSNLKVAIITDIDLLLGEAYTVEWSIKIRDEEKIDCYPDENGASA
ENCTARGCIWEASNSSGVPFCYFVNDLYSVSDVQYNSHGATADISLKSSVYANAFPSTPVNPLRLDVTYHKNEMP
QFKIYDPNKNRYEVPVPLNIPSMPSSTPEGQLYDVLIKKNPFGIEIRRKSIGTIIWDSQLLGFTFSDMFIRISTR
LPSKYLYGFGETEHRSYRRDLEWHTWGMFSRDQPPGYKKNSYGVHPYYMGLEEDGSAHGVLLLNSNAMDVTFQPL
PALTYRTTGGVLDFYVFLGPTPELVTQQYTELIGRPVMVPYWSLGFQLCRYGYQNDSEIASLYDEMVAAQIPYDV
QYSDIDYMERQLDFTLSPKFAGFPALINRMKADGMRVILILDPAISGNETQPYPAFTRGVEDDVFIKYPNDGDIV
WGKVWPDFPDVVVNGSLDWDSQVELYRAYVAFPDFFRNSTAKWWKREIEELYNNPQNPERSLKFDGMWIDMNEPS
SFVNGAVSPGCRDASLNHPPYMPHLESRDRGLSSKTLCMESQQILPDGSLVQHYNVHNLYGWSQTRPTYEAVQEV
TGQRGVVITRSTFPSSGRWAGHWLGDNTAAWDQLKKSIIGMTEFSLFGISYTGADICGFFQDAEYEMCVRWMQLG
AFYPFSRNHNTIGTRRQDPVSWDVAFVNISRTVLQTRCTLLPYLYTLMHKAHTEGVTVVRPLLHEFVSDQVTWDI
DSQFLLGPAFLVSPVLERNARNVTAYFPRARWYDYYTGVDINARGEWKTLPAPLDHINLHVRGGYILPWQEPALN
THLSRQKFMGFKIALDDEGTAGGWLFWDDGQSIDTYGKGLYYLASFSASQNTMQSHIIFNNYITGTNPLKLGYIE
IWGVGSVPVTSASISVSGMVITPSFNNDPTTQVLSIDVTDRNISLHNFTSLTWISTL

FIGURE 498

CGATCCTGCCGGAGCCCCGCCGCCGCCGGCTTGGATTCTGAAACCTTCCTTGTATCCCTCCTGAGACATCTTTGC
TGCAAGATCGAGGCTGTCCTCTGGTGAGAAGGTGGTGAGGCTTCCCGTCATATTCCAGCTCTGAACAGCAAC**ATG**

GGGTGCAAAGTCCTGCTCAACATTGGGCAGCAGATGCTGCGGCGGAAGGTGGTGGACTGTAGCCGGGAGGAGACG
CGGCTGTCTCGCTGCCTGAACACTTTTGATCTGGTGGCCCTCGGGGTGGGCAGCACACTGGGTGCTGGTGTCTAC
GTCCTGGCTGGAGCTGTGGCCCGTGAGAATGCAGGCCCTGCCATTGTCATCTCCTTCCTGATCGCTGCGCTGGCC
TCAGTGCTGGCTGGCCTGTGCTATGGCGAGTTTGGTGCTCGGGTCCCCAAGACGGGCTCAGCTTACCTCTACAGC
TATGTCACCGTTGGAGAGCTCTGGGCCTTCATCACCGGCTGGAACTTAATCCTCTCCTACATCATCGGTACTTCA
AGCGTAGCGAGGGCCTGGAGCGCCACCTTCGACGAGCTGATAGGCAGACCCATCGGGGAGTTCTCACGGACACAC
ATGACTCTGAACGCCCCCGGCGTGCTGGCTGAAAACCCCGACATATTCGCAGTGATCATAATTCTCATCTTGACA
GGACTTTTAACTCTTGGTGTGAAAGAGTCGGCCATGGTCAACAAAATATTCACTTGTATTAACGTCCTGGTCCTG
GGCTTCATAATGGTGTCAGGATTTGTGAAAGGATCGGTTAAAAACTGGCAGCTCACGGAGGAGGATTTTGGGAAC
ACATCAGGCCGTCTCTGTTTGAACAATGACACAAAAGAAGGGAAGCCCGGTGTTGGTGGATTCATGCCCTTCGGG
TTCTCTGGTGTCCTGTCGGGGGCAGCGACTTGCTTCTATGCCTTCGTGGGCTTTGACTGCATCGCCACCACAGGT
GAAGAGGTGAAGAACCCACAGAAGGCCATCCCCGTGGGGATCGTGGCGTCCCTCTTGATCTGCTTCATCGCCTAC
TTTGGGGTGTCGGCTGCCCTCACGCTCATGATGCCCTACTTCTGCCTGGACAATAACAGCCCCCTGCCCGACGCC
TTTAAGCACGTGGGCTGGGAAGGTGCCAAGTACGCAGTGGCCGTGGGCTCCCTCTGCGCTCTTTCCGCCAGTCTT
CTAGGTTCCATGTTTCCCATGCCTCGGGTTATCTATGCCATGGCTGAGGATGGACTGCTATTTAAATTCTTAGCC
AACGTCAATGATAGGACCAAAACACCAATAATCGCCACATTAGCCTCGGGTGCCGTTGCTGCTGTGATGGCCTTC
CTCTTTGACCTGAAGGACTTGGTGGACCTCATGTCCATTGGCACTCTCCTGGCTTACTCGTTGGTGGCTGCCTGT
GTGTTGGTCTTACGGTACCAGCCAGAGCAGCCTAACCTGGTATACCAGATGGCCAGTACTTCCGACGAGTTAGAT
CCAGCAGACCAAAATGAATTGGCAAGCACCAATGATTCCCAGCTGGGGTTTTTACCAGAGGCAGAGATGTTCTCT
TTGAAAACCATACTCTCACCCAAAAACATGGAGCCTTCCAAAATCTCTGGGCTAATTGTGAACATTTCAACCAGC
CTTATAGCTGTTCTCATCATCACCTTCTGCATTGTGACCGTGCTTGGAAGGGAGGCTCTCACCAAAGGGGCGCTG
TGGGCAGTCTTTCTGCTCGCAGGGTCTGCCCTCCTCTGTGCCGTGGTCACGGGCGTCATCTGGAGGCAGCCCGAG
AGCAAGACCAAGCTCTCATTTAAGGTTCCCTTCCTGCCAGTGCTCCCCATCCTGAGCATCTTCGTGAACGTCTAT
CTCATGATGCAGCTGGACCAGGGCACCTGGGTCCGGTTTGCTGTGTGGATGCTGATAGGCTTCATCATCTACTTT
GGCTATGGCCTGTGGCACAGCGAGGAGGCGTCCCTGGATGCCGACCAAGCAAGGACTCCTGACGGCAACTTGGAC
CAGTGCAAG**TGA**CGCACAGCCCCGCCCCCCGGAGGTGGCAGCAGCCCCGAGGGACGCCCCCAGAGGACCGGGAGG
CACCCCACCCTCCCCACCAGTGCAACAGAAACCACCTGCGTCCACACCCTCACTGCA

FIGURE 499

MGCKVLLNIGQQMLRRKVVDCSREETRLSRCLNTFDLVALGVGSTLGAGVYVLAGAVARENAGPAIVISFLIAAL
ASVLAGLCYGEFGARVPKTGSAYLYSYVTVGELWAFITGWNLILSYIIGTSSVARAWSATFDELIGRPIGEFSRT
HMTLNAPGVLAENPDIFAVIIILILTGLLTLGVKESAMVNKIFTCINVLVLGFIMVSGFVKGSVKNWQLTEEDFG
NTSGRLCLNNDTKEGKPGVGGFMPFGFSGVLSGAATCFYAFVGFDCIATTGEEVKNPQKAIPVGIVASLLICFIA
YFGVSAALTLMMPYFCLDNNSPLPDAFKHVGWEGAKYAVAVGSLCALSASLLGSMFPMPRVIYAMAEDGLLFKFL
ANVNDRTKTPIIATLASGAVAAVMAFLFDLKDLVDLMSIGTLLAYSLVAACVLVLRYQPEQPNLVYQMASTSDEL
DPADQNELASTNDSQLGFLPEAEMFSLKTILSPKNMEPSKISGLIVNISTSLIAVLIITFCIVTVLGREALTKGA
LWAVFLLAGSALLCAVVTGVIWRQPESKTKLSFKVPFLPVLPILSIFVNVYLMMQLDQGTWVRFAVWMLIGFIIY
FGYGLWHSEEASLDADQARTPDGNLDQCK

FIGURE 500

GTTTTCAGGCTCTTGGCGGTGAAGGTCAGAGTGCAGACCTGAGACCACTGCTCACCGACTTCAGACTCCAGTTTA
TCTGTGCCCCAGCTTCCTCACTTAGTCTCAGAAGACTTAGGCTGAGGCCTCAGAAGGAGATCTCCATCCTTTGTC
CAGAGCAGAACAGG**ATG**GCCATGTCCCAGGAATCATTGACCTTCAAGGACGTGTTTGTGGACTTCACCCTGGAGG
AGTGGCAGCAACTGGACTCTGCCCAGAAGAACCTCTACAGGGATGTCATGCTTGAGAACTACAGCCACCTGGTGT
CCGTGGGGTATCTAGTTGCGAAGCCTGATGTGATCTTCAGGTTGGGACCAGGTGGAGAGTCCTGGATGGCAGATG
GGGGGACCCCGGTACGGACCTGTGCAGAAGTCTGGCAAGTTGATGAGCAGATAGATCACTACAAGGAAAGCCAAG
ACAAACTTCCTTGGCAAGCTGCATTCATAGGCAAGGAAACACTGAAGGATGAAAGCGGTCAAGAATCCAGAACAT
GTAGAAAAAGCATTTATCTGAGCACAGAATTTGATTCTGTAAGGCAAAGACTCCCTAAATATTATTCGTGGGAAA
AGGCATTCAAAACATCATTTAAACTTTCTTGGTCAAAATGGAAGCTATGTAAGAAAGAAAGA**TGA**TGGATGTAAA
GCATATTGGAAAGTATGCTTCCATTATAATCTTCATAAAGCTCAACCTGCAGAGAGATTTTTTGACCCTAATCAA
CGAGGGAAAGCCCTCCACCAAAAGCAAGCCCTTAGAAAAAGTCAGAGAAGTCAAACTGGGGAGAAACTCTACAAA
TGTACTGAATGTGGAAAAGTGTTTATCCAGAAAGCAAACTTAGTTGTACATCAAAGAACTCACACCGGAGAGAAA
CCTTATGAATGCTGCGAATGTGCAAAAGCCTTCAGCCAGAAGTCAACCCTCATAGCACACCAGAGAACTCACACA
GGGGAGAAGCCCTATGAATGCAGTGAATGTGGAAAAACCTTTATCCAGAAGTCAACTCTGATTAAACATAAGAAA
ATTCATATGGAGAGAGACCCTATAAATGCAGTGTCTGTGAGAAAGCCTTCAGTAGGAAGTCAACTCTCATTAAAC
ATCAGATAATTCATATGGGAGAAACCTTATGAATGTAATAAATGTGGGAAATCTTTTAGTGTTAAATCAACTCTC
ATTGTATGTCACAGAACATAAATGCATAAGTTGCATGCTATTGTGAATAGTGTGATGAAATTTTGCACTGTCCTG
CTCTTTCCTGCTCAGGATGCAAATCAGTGAATCTTTTTTTTTTTTTTTTTTGAGACAGAGTCTTGCTCTGTCAT
CCAAACTGGAGTGCAGTGGCACAATCTTGGCTCACTGCAACCTCCGCCTCTTGGGTTCAACCGATTCTCCTGCCT
CAACCTCCCAAATAGTTGGGATTACAGGCACATGCCACCATACGCAGCTAATTTGTATTTTTAGTAGAGACAGGG
TTTCACCATGTTGGCCAGCCTGGTCTTGAACTCCTGACCTCAAGTGATCCGCCTGCCTCAGCCTCCCAAAGTGCT
GGGATTACAGGCATGAGCCACTGCACCCGGCTTGAATCATCCTTTTGTCCAGTATTATATCCATGCTGTATATGC
TACCCGCCCACTAGTCCCTTAGCTGTCTCAGTTGTCAGATTGACTGTCATGGGATTGCAGTGCTTGCATTAAAGC
TACCCTTATTGTATAATGACCCCAAAGTGCAAGAGTAGTGATGTTGGCAATTTGCATACACCAAAAATAAGTTAT
AAAGTGCTTCCTTAAAGTGAAATGGTTAAAGTTCTTGACTTAATAAAGAAAAAAAATGTATGCTGAGGTTGTTAA
GATTTACAGTAAGAATGAATCTTCTATCCAGAAATTGTGAAGGAGGAAAAAGAAACTTGTGCTAGTTTTGCTGTC
ACATCTGAAACTGCAAAAGTTGTGGCCACAGTGCATCATAAGTGCTAAGACGAAAAAGACATTAAATTTGCGGAT
GGAAGGCGTGAATAGAAATGGGTTCTGACAGCAATCAGGTTCGGTACTATTCACAGTTTCAGGCATCCGCTAGGG
ATCTTGGAACATATCCCCCATGGATAAGGGAGGGGTACTGTACCTTGTCATATTGTGCATTAAAGAATTCATTGA
GTGTAATCATGTAAGTCTAACACACATTTAAAAAGCTCTCAGATATCATTTCGCCTTCGGTTGATGTAAGAAAAT
TCAAAGCTACTCAAATCATTCAATAAATGATAAAATTATTTAAAAAAAAAAAAAAAA

FIGURE 501

MAMSQESLTFKDVFVDFTLEEWQQLDSAQKNLYRDVMLENYSHLVSVGYLVAKPDVIFRLGPGGESWMADGGTPV
RTCAEVWQVDEQIDHYKESQDKLPWQAAFIGKETLKDESGQESRTCRKSIYLSTEFDSVRQRLPKYYSWEKAFKT
SFKLSWSKWKLCKKER

FIGURE 502

AACACATTTCATCTGGGCTTCTTAAATCTAAATCTTTAAA**ATG**ACTAAGTTTTCTTCCTTTTCTCTGTTTTTCCT
AATAGTTGGGGCTTATATGACTCATGTGTGTTTCAATATGGAAATTATTGGAGGGAAAGAAGTGTCACCTCATTC
CAGGCCATTTATGGCCTCCATCCAGTATGGCGGACATCACGTTTGTGGAGGTGTTCTGATTGATCCACAGTGGGT
GCTGACAGCAGCCCACTGCCAATATCGGTTTACCAAAGGCCAGTCTCCCACTGTGGTTTTAGGCGCACACTCTCT
CTCAAAGAATGAGGCCTCCAAACAAACACTGGAGATCAAAAAATTTATACCATTCTCAAGAGTTACATCAGATCC
TCAATCAAATGATATCATGCTGGTTAAGCTTCAAACAGCCGCAAAACTCAATAAACATGTCAAGATGCTCCACAT
AAGATCCAAAACCTCTCTTAGATCTGGAACCAAATGCAAGGTTACTGGCTGGGGAGCCACCGATCCAGATTCATT
AAGACCTTCTGACACCCTGCGAGAAGTCACTGTTACTGTCCTAAGTCGAAAACTTTGCAACAGCCAAAGTTACTA
CAACGGCGACCCTTTTATCACCAAAGACATGGTCTGTGCAGGAGATGCCAAAGGCCAGAAGGATTCCTGTAAGGG
TGACTCAGGGGGCCCCTTGATCTGTAAAGGTGTCTTCCACGCTATAGTCTCTGGAGGTCATGAATGTGGTGTTGC
CACAAAGCCTGGAATCTACACCCTGTTAACCAAGAAATACCAGACTTGGATCAAAAGCAACCTTGTCCCGCCTCA
TACAAAT**TAA**GTTACAAATAATTTTATTGGATGCACTTGCTTCTTTTTTCCTAATATGCTCGCAGGTTAGAGTTG
GGTGTAAGTAAAGCAGAGCACATATGGGGTCCATTTTTGCACTTGTAAGTCATTTTATTAAGGAATCAAGTTCTT
TTTCACTTGTATCACTGATGTATTTCTACCATGCTGGTTTATTCTAAATAAAATTTAGAAGACT

FIGURE 503

MTKFSSFSLFFLIVGAYMTHVCFNMEIIGGKEVSPHSRPFMASIQYGGHHVCGGVLIDPQWVLTAAHCQYRFTKG
QSPTVVLGAHSLSKNEASKQTLEIKKFIPFSRVTSDPQSNDIMLVKLQTAAKLNKHVKMLHIRSKTSLRSGTKCK
VTGWGATDPDSLRPSDTLREVTVTVLSRKLCNSQSYYNGDPFITKDMVCAGDAKGQKDSCKGDSGGPLICKGVFH
AIVSGGHECGVATKPGIYTLLTKKYQTWIKSNLVPPHTN

FIGURE 504

GGACAGCACAGCTGACAGCCGTGCTCAGAAAGTTTCTGGATCCCAGGCTCATCTCCACAGAGGAGAACACGCAGG
CAGCAGAGACC**ATG**GGGCCCATCTCAGCCCCTTCCTGCAGATGGCGCATCCCCTGGCAGGGGCTCCTGCTCACAG
CCTCACTTTTCACCTTCTGGAACCCGCCCACCACTGCTCAGCTCACTATTGAAGCTGTGCCATCCAATGCTGCAG
AGGGGAAGGAGGTTCTTCTACTTGTCCACAATCTGCCCCAGGACCCTCGTGGCTACAACTGGTACAAAGGGGAAA
CAGTGGATGCCAACCGTCGAATTATAGGATATGTAATATCAAATCAACAGATTACCCCAGGGCCTGCATACAGCA
ATCGAGAGACAATATACCCCAATGCATCCCTGCTGATGCGGAACGTCACCAGAAATGACACAGGATCCTACACCC
TACAAGTCATAAAGCTAAATCTTATGAGTGAAGAAGTAACTGGCCAGTTCAGCGTACATCCGGAGACTCCCAAGC
CCTCCATCTCCAGCAACAACTCCAACCCCGTGGAGGACAAGGATGCTGTGGCCTTCACCTGTGAACCTGAGACTC
AGAACACAACCTACCTGTGGTGGGTAAATGGTCAGAGTCTCCCGGTCAGTCCCAGGCTGCAGCTGTCCAATGGCA
ACAGGACCCTCACTCTACTCAGTGTCACAAGGAATGACGTAGGACCCTATGAATGTGAAATACAGAACCCAGCGA
GTGCAAACTTCAGTGACCCAGTCACCCTGAATGTCCTCTATGGCCCAGATGCCCCCACCATTTCCCCTTCAGACA
CCTATTACCATGCAGGGGTAAATCTCAACCTCTCCTGCCATGCGGCCTCTAATCCACCCTCACAGTATTCTTGGT
CTGTCAATGGCACATTCCAGCAATACACACAAAAGCTCTTTATCCCCAACATCACTACAAAGAACAGCGGATCCT
ATGCCTGCCACACCACTAACTCAGCCACTGGCCGCAACAGGACCACAGTCAGGATGATCACAGTCTCTGATGCTG
TAGTACAAGGAAGTTCTCCTGGCCTCTCAGCTAGAGCCACTGTCAGCATCATGATTGGAGTACTGGCCAGGGTGG
CTCTGATA**TAG**TAGCTCTGGTGTAGTTTCTGCATTTCAAGAAGACTGGCAGACAGTTGTTTTATTCTTCCTCAA
AGCATTTGCAATCAGCTACCATTCAAAATTGCTTCTTCTTCAAGATTTATGGAAAATACTCTGACGAGTACTCTT
GAACACAAGTTCCTGATAACTTTAAGATCACGCCACTGGACTGTCTATGAACTTGCAAACAGGCTGATACCTTTG
TGAAGTTGCCCACCAAAACACAGAAGGAAAAAAACATGAATTTCATTGAACTAAATAATAATGAGGATAATGTTT
TTAAGATTTTTTTTTTTTTTTTTTTTGAGATGGAATCTCGCTCTGTCGCCCAGGCTGGAGTGCAGTGGCACGATC
TCAACTCACTGCAACGTCCGCCTCCTGGGTTCACACCATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGACTACA
GGCGCCTGCCACAACGCCCGGCTAATTTTTGTATTTTTAGTAGAGACGGGGTTTCACTGTGGTCTCAATCTCCT
GACTTCATGGTCCGCCTGCCTCAGCCTCCCAAAGTTCTGGGATTACAGGTGTGAGCCACCGCGCCCAGCCCGTTT
TTAAGATTTTTTATTTGAAAAATTGCCAATTCTTTAAGTGTTTTCTTTTTCAGATTTATGAATTTCTTTATCTTT
TAAGCTATCTATACCTTACTGCAATTTGGTAAAGCAGACTTTTGTGAACAAAAATTATAACATTTACTTTTGCTC
CCTACCTGACTGCCACAGAACTGGGCAACTATTCATGAGTATTCATATGTTTATGGTAATTCAGTTATTTGCACA
AGTTCAGTGAGAATCTGCTGTCTTTATAATGGGATATAGTTTAAAACATTGGTTATATTACCAAGGCTTTGATTG
GGATGTTATATTTGAGAAAATACAGAGAATGATAGATTAACGGAGTGTCTAATCTATCGTGTCAACCCCAAATTT
TTACGTATGAGATCCTTTAGTCCACCCAATGGCTGACAGTAACAGCATCTTTAACACAACTCTTTGTTCAAATGT
ACTATGGTCTCTTTTAGAGTCAGACTCCTAGACTCACTTGTTCTCACTGTCTGTTTTAATTTAACCCAGGCATGC
AATGCTAGATAATAAAATTGCTCCCTATTGGCTGATC

FIGURE 505

MGPISAPSCRWRIPWQGLLLTASLFTFWNPPTTAQLTIEAVPSNAAEGKEVLLLVHNLPQDPRGYNWYKGETVDA
NRRIIGYVISNQQITPGPAYSNRETIYPNASLLMRNVTRNDTGSYTLQVIKLNLMSEEVTGQFSVHPETPKPSIS
SNNSNPVEDKDAVAFTCEPETQNTTYLWWVNGQSLPVSPRLQLSNGNRTLTLLSVTRNDVGPYECEIQNPASANF
SDPVTLNVLYGPDAPTISPSDTYYHAGVNLNLSCHAASNPPSQYSWSVNGTFQQYTQKLFIPNITTKNSGSYACH
TTNSATGRNRTTVRMITVSDAVVQGSSPGLSARATVSIMIGVLARVALI

FIGURE 506

CGCAAGAATGCATACAAACTCCAGGGCTGCTCTCTCCTGGAGAGGGAGGGAGGGGATTTAAAAACCTGCAGCAAC
ATGGGGGAGGAGGCTGTTTGTCCTTCTCTCTCTGGGGAAGTAACTCGCTCAAACTGCCTTCCTTGCTGAGCTGCT
TCGCGTAGCTTTGAGGAAGGTCTAGTGAAATTGGTCTTTCCATTACATCTGGATGTACTACCAGAGAGTTCTGCT
GCTGTTGTTTTTTTAGCTTTTCTTTCTTTGAGTCTTTAAAGGGCAATTGTCGACACTCTGCAAACATACCGATT
TGTTGTCTGCCCACTTTGGAGTCTTCAATCTGGGCAGTAACTATTTACCCTTTTTCCTGCTAGCCTGTCCCCCTC
TCTGGATTGAAGTCACCTGCTAAGACAATGGACTACCGACCAGACTCCCGGAAATC**ATG**TTGGTAGGATCCCAGT
CTTTTTCGCCTGGAGGGCCCAATGGGATCATTAGAAGCCAGTCCTTTGCGGGTTTCAGCGGCCTCCAGGAAAGGC
GATCCAGGTGTAACTCCTTCATTGAAAATTCCTCCGCTCTCAAGAAGCCTCAGGCCAAACTGAAGAAAATGCACA
ATTTAGGCCACAAAAACAACAATCCCCCCAAAGAGCCTCAGCCTAAAAGGGTGGAAGAAGTCTACAGGGCCTTGA
AAAATGGACTTGATGAATATCTGGAGGTTCACCAGACGGAGCTGGACAAGTTGACAGCTCAGTTAAAAGATATGA
AAAGAAACTCTCGCCTGGGTGTACTGTATGACCTAGACAAGCAAATTAAAACAATTGAAAGATACATGAGACGCC
TGGAGTTTCATATAAGTAAGGTAGATGAACTCTATGAAGCTTATTGTATCCAGCGACGCCTCCAGGATGGTGCCA
GCAAAATGAAGCAAGCCTTCGCAACATCCCCTGCCAGCAAAGCTGCCCGGGAGAGTCTGACAGAGATCAATCGGA
GCTTCAAGGAGTACACAGAGAATATGTGCACCATTGAAGTGGAGCTAGAGAATCTGCTGGGAGAATTCTCCATCA
AGATGAAAGGTCTGGCTGGCTTTGCACGCCTCTGTCCTGGAGATCAATATGAAATTTTCATGAAGTATGGCCGGC
AGCGGTGGAAACTGAAAGGCAAAATAGAAGTAAATGGCAAGCAGAGCTGGGATGGAGAAGAAACAGTTTTTCTGC
CCCTGATAGTTGGGTTCATCTCCATCAAGGTCACGGAGCTCAAAGGGCTAGCAACTCACATCCTGGTAGGTAGCG
TGACCTGTGAGACCAAAGAGCTGTTTGCAGCCCGACCTCAGGTAGTGGCTGTCGACATCAATGACCTTGGTACCA
TCAAACTGAACCTGGAAATCACCTGGTATCCATTTGACGTGGAGGACATGACCGCATCCTCAGGCGCTGGGAACA
AGGCAGCAGCCCTTCAGAGGAGAATGTCCATGTACAGCCAGGGTACCCCGGAAACGCCCACCTTCAAAGACCACT
CCTTCTTTTCAAATCTACCTGATGACATCTTTGAAAATGGAAAGGCAGCCGAGGAGAAAATGCCACTGTCGCTCA
GCTTCAGTGACCTGCCCAACGGGGACTGCGCCCTCACCTCCCACTCAACAGGCTCCCCTTCCAACTCAACAAATC
CAGAAATTACCATCACCCCTGCGGAGTTTAACCTCAGCAGCTTGGCCTCCCAGAATGAGGGTATGGATGACACCA
GCTCAGCATCTTCCAGGAACTCCCTGGGAGAAGGCCAAGAGCCAAAGTCACACCTGAAGGAGGAAGACCCAGAGG
AGCCCAGAAAACCTGCCTCGGCCCCATCTGAGGCTTGCCGCCGACAGTCCTCAGGTGCTGGGGCTGAGCACCTGT
TCCTTGAGAATGATGTTGCAGAAGCACTTCTGCAAGAGTCTGAGGAGGCCTCTGAGCTCAAGCCTGTGGAACTGG
ACACTTCGGAAGGAAACATCACAAAGCAGCTGGTCAAGAGGCTCACATCTGCAGAGGTGCCAATGGCCACAGACA
GGCTGCTCTCTGAGGGTTCTGTTGGTGGAGAATCTGAAGGCTGCAGATCCTTTCTAGATGGAAGCTTAGAGGATG
CTTTTAATGGGCTTTTACTTGCATTAGAACCACATAAAGAGCAGTATAAAGAGTTTCAGGATCTGAACCAAGAAG
TCATGAATTTGGATGATATTCTAAAAAAG**TAG**AGAAGATCCTCTAATGGATCCCAGTGTGCCCATCCCTCAACCT
CCTCAGTGATCAACTCATGGCCAATCTTGTTTCCTATTCTTCAACCTGCTGACTTCCCTCTGGATTCTTCTGCAA
CCAGTCCCAGATATTGTGCCATTTTATCCATGGTTGTACTTCTTTTTTGGATATAAAGATTTTTAAATGCATTTT
TTAAATGCTAACAAAAAATAAAAACTTGAAACAAAAAAAAAAAAAAAAAAA

FIGURE 507

MLVGSQSFSPGGPNGIIRSQSFAGFSGLQERRSRCNSFIENSSALKKPQAKLKKMHNLGHKNNNPPKEPQPKRVE
EVYRALKNGLDEYLEVHQTELDKLTAQLKDMKRNSRLGVLYDLDKQIKTIERYMRRLEFHISKVDELYEAYCIQR
RLQDGASKMKQAFATSPASKAARESLTEINRSFKEYTENMCTIEVELENLLGEFSIKMKGLAGFARLCPGDQYEI
FMKYGRQRWKLKGKIEVNGKQSWDGEETVFLPLIVGFISIKVTELKGLATHILVGSVTCETKELFAARPQVVAVD
INDLGTIKLNLEITWYPFDVEDMTASSGAGNKAAALQRRMSMYSQGTPETPTFKDHSFFSNLPDDIFENGKAAEE
KMPLSLSFSDLPNGDCALTSHSTGSPSNSTNPEITITPAEFNLSSLASQNEGMDDTSSASSRNSLGEGQEPKSHL
KEEDPEEPRKPASAPSEACRRQSSGAGAEHLFLENDVAEALLQESEEASELKPVELDTSEGNITKQLVKRLTSAE
VPMATDRLLSEGSVGGESEGCRSFLDGSLEDAFNGLLLALEPHKEQYKEFQDLNQEVMNLDDILKK

FIGURE 508

CGGGGGCTGGCGGCTGCGGCTCGGCGGAGAGTGCGGC**ATG**CGCTCGGAAAAGGAGGGGGCCGGAGGCCTTCGGGC
GGCCGTTGCCGCGCGGGGCCCGAGCGGGAGGGAGAAGCTGTCGGCCCTAGAAGTGCAGTTCCACCGCGACTCGCA
GCAGCAGGAGGCTGAGACGCCGCCAACTTCGTCCTCCGGTTGCGGGGGCGGTGCGGGCAAACCTCGCGAGGAGAA
GAGGACGGCCCTGAGCAAGGTGGTCATCCGCCGCCTGCCTCCGGGCCTCACCAAGGAGCAGCTGGAGGAGCAGCT
GCGCCCGCTGCCAGCACACGACTACTTCGAGTTCTTCGCCGCCGACCTGAGTCTTTATCCTCATCTCTACTCAAG
AGCATACATTAATTTTAGGAATCCTGATGACATCCTTCTTTTTAGAGATCGTTTTGATGGATATATCTTCCTTGA
CAGCAAAGGCCTAGAATATCCTGCAGTGGTAGAGTTTGCTCCATTCCAGAAGATAGCCAAAAAGAAGCTGAGAAA
AAAAGATGCCAAGACTGGAAGCATCGAAGATGATCCAGAATATAAGAAGTTTTTAGAAACCTACTGTGTGGAGGA
AGAGAAGACCAGTGCCAACCCTGAGACTCTGCTGGGGGAGATGGAGGCGAAGACAAGAGAGCTCATTGCTAGAAG
AACCACACCTCTTTTGGAATATATTAAAAATAGAAAATTAGAAAAGCAGAGAATTCGAGAAGAGAAGCGAGAAGA
ACGGAGGAGGAGAGAGTTAGAAAAGAAACGTTTGCGGGAAGAGGAAAAAAGAAGAAGAAGAGAAGAAGAAAGATG
CAAAAAAAAGAGACAGATAAACAGAAGAAAATTGCAGAGAAAGAAGTAAGGATTAAGCTTCTTAAGAAACCAGA
AAAGGGAGAGGAACCAACCACAGAGAAACCAAAAGAAAGAGGAGAGGAGATTGATACTGGAGGTGGCAAGCAGGA
ATCCTGTGCCCCCGGTGCAGTCGTAAAAGCCAGGCCCATGGAAGGCTCGCTGGAGGAGCCCCAGGAGACGTCACA
CAGCGGCAGTGATAAAGAGCACAGGGATGTGGAGAGATCTCAAGAACAAGAATCTGAAGCACAAAGATACCATGT
GGATGACGGCAGGAGGCACAGAGCTCACCACGAGCCTGAACGGCTTTCCAGAAGGAGTGAGGATGAGCAGAGATG
GGGGAAAGGACCTGGCCAAGACAGAGGGAAGAAGGGGAGCCAGGACAGCGGGGCTCCGGGGGAGGCCATGGAGAG
ACTGGGAAGAGCGCAGAGGTGTGACGACAGTCCAGCACCCAGAAAAGAGCGACTGGCAAACAAGGACCGGCCAGC
CTTGCAGCTGTATGATCCAGGAGCTCGCTTCCGAGCGCGAGAGTGTGGCGGAAACAGGAGGATCTGCAAGGCAGA
AGGTTCGGGGACTGGTCCTGAGAAGAGGGAAGAGGCAGAG**TGA**GTCACTGCACGCACCTGGCCTCCATGGACGAG
CAAGGGCATCCCAGAAACGTGTAAATGACCCCGAGTGTGACTGGGAAGGAGAACTTATTCCTTACCAGGAAACTG
GAAGCTAAAAATACAGAGGGTGACGTAGAAACACGCAGAACCATTCTAAAGAAAGTAGTGATCTTGTATTAAAT
TGAGCAGAATTCTCACAGATTTTACCATTCCTGTTATAAACTAGTATTTGTTGTTTAGCCAAAACAGAAAATGAT
TTCCACTGGACAGTAGAAAAATATGTGTAAAATAGGGAAGAAAGTTAGTATTGGATCAGTGTGAGTCCTGAAGCA
CTTTCAGTGCTGTGAGAACGACATCCACTTTGGGTTTCATTCGTTTGTAAGCAGAGGAGCTGTCAGTCACTCGTG
CTTCTCGGTGGCCTCTGAGCCATGGTGTCGAGTGAAGAGTAGTTCTTGTTTGTTACAACCTTTGTGAGTCAGCCA
TGCCCGCAAAGCGTGCTGTGTTTTAGTCCTGGTAGGAATATTTATCAGAGTTCACACTATATAAAACCCAACAGC
TTCAACTATTGCCCTTTCAACAGTTTTGCCACTGACCGGATAGAAACGGTTTCAGTCTCTGGATGGATGTGTTTG
TGGTTTGTAACCATTACGGTTTAAACCATGGTTTAAGAATTTGCCCAAATAACAGAAATTTTGTTCGGGAAGGGA
TAAACTAGATATAGCATACAGAGCCTGTTTTTGAGTTTTAGATACTTTATTTGTAAATAACTTAAAATAGCTTTC
TGAAACCGTGCATTCTGTAGTTTCTTCCTTTCAGTGAAATTGCTAAATGTCAATGTATTTTTGGCACTGCGATTT
TAACCATTTATTAAATAAAAATTTTGTTAAAGAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 509

MRSEKEGAGGLRAAVAARGPSGREKLSALEVQFHRDSQQQEAETPPTSSSGCGGGAGKPREEKRTALSKVVIRRL
PPGLTKEQLEEQLRPLPAHDYFEFFAADLSLYPHLYSRAYINFRNPDDILLFRDRFDGYIFLDSKGLEYPAVVEF
APFQKIAKKKLRKKDAKTGSIEDDPEYKKFLETYCVEEEKTSANPETLLGEMEAKTRELIARRTTPLLEYIKNRK
LEKQRIREEKREERRRRELEKKRLREEEKRRRREEERCKKKETDKQKKIAEKEVRIKLLKKPEKGEEPTTEKPKE
RGEEIDTGGGKQESCAPGAVVKARPMEGSLEEPQETSHSGSDKEHRDVERSQEQESEAQRYHVDDGRRHRAHHEP
ERLSRRSEDEQRWGKGPGQDRGKKGSQDSGAPGEAMERLGRAQRCDDSPAPRKERLANKDRPALQLYDPGARFRA
RECGGNRRICKAEGSGTGPEKREEAE

FIGURE 510

GCCCCATCTCCTTGGGCTGCCCGTGCTTCGTGCTTTGGACTACCGCCCAGCAGTGTCCTGCCCTCTGCCTGGGCC
TCGGTCCCTCCTGCACCTGCTGCCTGGATCCCCGGCCTGCCTGGGCCTGGGCCTTGGTTCTCCCC**ATG**ACACCAC
CTGAACGTCTCTTCCTCCCAAGGGTGTGTGGCACCACCCTACACCTCCTCCTTCTGGGGCTGCTGCTGGTTCTGC
TGCCTGGGGCCCAGGGGCTCCCTGGTGTTGGCCTCACACCTTCAGCTGCCCAGACTGCCCGTCAGCACCCCAAGA
TGCATCTTGCCCACAGCACCCTCAAACCTGCTGCTCACCTCATTGGAGACCCCAGCAAGCAGAACTCACTGCTCT
GGAGAGCAAACACGGACCGTGCCTTCCTCCAGGATGGTTTCTCCTTGAGCAACAATTCTCTCCTGGTCCCCACCA
GTGGCATCTACTTCGTCTACTCCCAGGTGGTCTTCTCTGGGAAAGCCTACTCTCCCAAGGCCACCTCCTCCCCAC
TCTACCTGGCCCATGAGGTCCAGCTCTTCTCCTCCCAGTACCCCTTCCATGTGCCTCTCCTCAGCTCCCAGAAGA
TGGTGTATCCAGGGCTGCAGGAACCCTGGCTGCACTCGATGTACCACGGGGCTGCGTTCCAGCTCACCCAGGGAG
ACCAGCTATCCACCCACACAGATGGCATCCCCCACCTAGTCCTCAGCCCTAGTACTGTCTTCTTTGGAGCCTTCG
CTCTG**TAG**AACTTGGAAAAATCCAGAAAGAAAAAATAATTGATTTCAAGACCTTCTCCCCATTCTGCCTCCATTC
TGACCATTTCAGGGGTCGTCACCACCTCTCCTTTGGCCATTCCAACAGCTCAAGTCTTCCCTGATCAAGTCACCG
GAGCTTTCAAAGAAGGAATTCTAGGCATCCCAGGGGACCACACCTCCCTGAACCATCCCTGATGTCTGTCTGGCT
GAGGATTTCAAGCCTGCCTAGGAATTCCCAGCCCAAAGCTGTTGGTCTGTCCCACCAGCTAGGTGGGGCCTAGAT
CCACACACAGAGGAAGAGCAGGCACATGGAGGAGCTTGGGGGATGACTAGAGGCAGGGAGGGGACTATTTATGAA
GGCAAAAAAATTAAATTATTTATTTATGGAGGATGGAGAGAGGGGAATAATAGAAGAACATCCAAGGAGAAACAG
AGACAGGCCCAAGAGATGAAGAGTGAGAGGGCATGCGCACAAGGCTGACCAAGAGAGAAAGAAGTAGGCATGAGG
GATCACAGGGCCCCAGAAGGCAGGGAAAGGCTCTGAAAGCCAGCTGCCGACCAGAGCCCCACACGGAGGCATCTG
CACCCTCGATGAAGCCCAATAAACCTCTTTTCTCTG

FIGURE 511

MTPPERLFLPRVCGTTLHLLLLGLLLVLLPGAQGLPGVGLTPSAAQTARQHPKMHLAHSTLKPAAHLIGDPSKQN
SLLWRANTDRAFLQDGFSLSNNSLLVPTSGIYFVYSQVVFSGKAYSPKATSSPLYLAHEVQLFSSQYPFHVPLLS
SQKMVYPGLQEPWLHSMYHGAAFQLTQGDQLSTHTDGIPHLVLSPSTVFFGAFAL

FIGURE 512

TGGAAAGGGCTGTCACCCGGCTTGGCCCCTTCCACACCCAACTGGGGCAAGCCTGACCCGGCGACAGGAGGCATG
AGGGGCCCCCGGCCGAA**ATG**ACAGTGCTGGCGCCAGCCTGGAGCCCAACAACCTATCTCCTCCTGCTGCTGCTGC
TGAGCTCGGGACTCAGTGGGACCCAGGACTGCTCCTTCCAACACAGCCCCATCTCCTCCGACTTCGCTGTCAAAA
TCCGTGAGCTGTCTGACTACCTGCTTCAAGATTACCCAGTCACCGTGGCCTCCAACCTGCAGGACGAGGAGCTCT
GCGGGGCGCTCTGGCGGCTGGTCCTGGCACAGCGCTGGATGGAGCGGCTCAAGACTGTCGCTGGGTCCAAGATGC
AAGGCTTGCTGGAGCGCGTGAACACGGAGATACACTTTGTCACCAAATGTGCCTTTCAGCCCCCCCCCAGCTGTC
TTCGCTTCGTCCAGACCAACATCTCCCGCCTCCTGCAGGAGACCTCCGAGCAGCTGGTGGCGCTGAAGCCCTGGA
TCACTCGCCAGAACTTCTCCCGGTGCCTGGAGCTGCAGTGTCAGCCCGACTCCTCAACCCTGCCACCCCCATGGA
GTCCCCGGCCCCTGGAGGCCACAGCCCCGACAGCCCCGCAGCCCCCTCTGCTCCTCCTACTGCTGCTGCCCGTGG
GCCTCCTGCTGCTGGCCGCTGCCTGGTGCCTGCACTGGCAGAGGACGCGGCGGAGGACACCCCGCCCTGGGGAGC
AGGTGCCCCCCGTCCCCAGTCCCCAGGACCTGCTGCTTGTGGAGCAC**TGA**CCTGGCCAAGGCCTCATCCTGGGGA
GGATACGTAGGCACACAGAGGGGAGTCACCAGCC

FIGURE 513

MTVLAPAWSPTTYLLLLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSDYLLQDYPVTVASNLQDEELCGALWR
LVLAQRWMERLKTVAGSKMQGLLERVNTEIHFVTKCAFQPPPSCLRFVQTNISRLLQETSEQLVALKPWITRQNF
SRCLELQCQPDSSTLPPPWSPRPLEATAPTAPQPPLLLLLLLPVGLLLLAAAWCLHWQRTRRRTPRPGEQVPPVP
SPQDLLLVEH

FIGURE 514A

CTTCAGATAGATTATATCTGGAGTGAAGGATCCTGCCACCTACGTATCTGGCATAGTATTCTGTGTAGTGGGATG
AGCAGAGAACAAAAACAAAATAATCCAGTGAGAAAAGCCCGTAAATAAACCTTCAGACCAGAGATCTATTCTCCA
GCTTATTTTAAGCTCAACTTAAAAAGAAGAACTGTTCTCTGATTCTTTTCGCCTTCAATACACTTAATGATTTAA
CTCCACCCTCCTTCAAAAGAAACAGCATTTCCTACTTTTATACTGTCTATATGATTGATTTGCACAGCTCATCTG
GCCAGAAGAGCTGAGACATCCGTTCCCCTACAAGAAACTCTCCCCGGGTGGAACAAG**ATG**GATTATCAAGTGTCA
AGTCCAATCTATGACATCAATTATTATACATCGGAGCCCTGCCAAAAAATCAATGTGAAGCAAATCGCAGCCCGC
CTCCTGCCTCCGCTCTACTCACTGGTGTTCATCTTTGGTTTTGTGGGCAACATGCTGGTCATCCTCATCCTGATA
AACTGCAAAAGGCTGAAGAGCATGACTGACATCTACCTGCTCAACCTGGCCATCTCTGACCTGTTTTTCCTTCTT
ACTGTCCCCTTCTGGGCTCACTATGCTGCCGCCCAGTGGGACTTTGGAAATACAATGTGTCAACTCTTGACAGGG
CTCTATTTTATAGGCTTCTTCTCTGGAATCTTCTTCATCATCCTCCTGACAATCGATAGGTACCTGGCTGTCGTC
CATGCTGTGTTTGCTTTAAAAGCCAGGACGGTCACCTTTGGGGTGGTGACAAGTGTGATCACTTGGGTGGTGGCT
GTGTTTGCGTCTCTCCCAGGAATCATCTTTACCAGATCTCAAAAAGAAGGTCTTCATTACACCTGCAGCTCTCAT
TTTCCATACAGTCAGTATCAATTCTGGAAGAATTTCCAGACATTAAAGATAGTCATCTTGGGGCTGGTCCTGCCG
CTGCTTGTCATGGTCATCTGCTACTCGGGAATCCTAAAAACTCTGCTTCGGTGTCGAAATGAGAAGAAGAGGCAC
AGGGCTGTGAGGCTTATCTTCACCATCATGATTGTTTATTTTCTCTTCTGGGCTCCCTACAACATTGTCCTTCTC
CTGAACACCTTCCAGGAATTCTTTGGCCTGAATAATTGCAGTAGCTCTAACAGGTTGGACCAAGCTATGCAGGTG
ACAGAGACTCTTGGGATGACGCACTGCTGCATCAACCCCATCATCTATGCCTTTGTCGGGGAGAAGTTCAGAAAC
TACCTCTTAGTCTTCTTCCAAAAGCACATTGCCAAACGCTTCTGCAAATGCTGTTCTATTTTCCAGCAAGAGGCT
CCCGAGCGAGCAAGCTCAGTTTACACCCGATCCACTGGGGAGCAGGAAATATCTGTGGGCTTG**TGA**CACGGACTC
AAGTGGGCTGGTGACCCAGTCAGAGTTGTGCACATGGCTTAGTTTTCATACACAGCCTGGGCTGGGGGTGGGGTG
GGAGAGGTCTTTTTTAAAAGGAAGTTACTGTTATAGAGGGTCTAAGATTCATCCATTTATTTGGCATCTGTTTAA
AGTAGATTAGATCTTTTAAGCCCATCAATTATAGAAAGCCAAATCAAAATATGTTGATGAAAAATAGCAACCTTT
TTATCTCCCCTTCACATGCATCAAGTTATTGACAAACTCTCCCTTCACTCCGAAAGTTCCTTATGTATATTTAAA
AGAAAGCCTCAGAGAATTGCTGATTCTTGAGTTTAGTGATCTGAACAGAAATACCAAAATTATTTCAGAAATGTA
CAACTTTTTACCTAGTACAAGGCAACATATAGGTTGTAAATGTGTTTAAAACAGGTCTTTGTCTTGCTATGGGGA
GAAAAGACATGAATATGATTAGTAAAGAAATGACACTTTTCATGTGTGATTTCCCCTCCAAGGTATGGTTAATAA
GTTTCACTGACTTAGAACCAGGCGAGAGACTTGTGGCCTGGGAGAGCTGGGGAAGCTTCTTAAATGAGAAGGAAT
TTGAGTTGGATCATCTATTGCTGGCAAAGACAGAAGCCTCACTGCAAGCACTGCATGGGCAAGCTTGGCTGTAGA
AGGAGACAGAGCTGGTTGGGAAGACATGGGGAGGAAGGACAAGGCTAGATCATGAAGAACCTTGACGGCATTGCT
CCGTCTAAGTCATGAGCTGAGCAGGGAGATCCTGGTTGGTGTTGCAGAAGGTTTACTCTGTGGCCAAAGGAGGGT
CAGGAAGGATGAGCATTTAGGGCAAGGAGACCACCAACAGCCCTCAGGTCAGGGTGAGGATGGCCTCTGCTAAGC
TCAAGGCGTGAGGATGGGAAGGAGGGAGGTATTCGTAAGGATGGGAAGGAGGGAGGTATTCGTGCAGCATATGAG
GATGCAGAGTCAGCAGAACTGGGGTGGATTTGGTTTGGAAGTGAGGGTCAGAGAGGAGTCAGAGAGAATCCCTAG
TCTTCAAGCAGATTGGAGAAACCCTTGAAAAGACATCAAGCACAGAAGGAGGAGGAGGAGGTTTAGGTCAAGAAG
AAGATGGATTGGTGTAAAAGGATGGGTCTGGTTTGCAGAGCTTGAACACAGTCTCACCCAGACTCCAGGCTGTCT
TTCACTGAATGCTTCTGACTTCATAGATTTCCTTCCCATCCCAGCTGAAATACTGAGGGGTCTCCAGGAGGAGAC
TAGATTTATGAATACACGAGGTATGAGGTCTAGGAACATACTTCAGCTCACACATGAGATCTAGGTGAGGATTGA
TTACCTAGTAGTCATTTCATGGGTTGTTGGGAGGATTCTATGAGGCAACCACAGGCAGCATTTAGCACATACTAC
ACATTCAATAAGCATCAAACTCTTAGTTACTCATTCAGGGATAGCACTGAGCAAAGCATTGAGCAAAGGGGTCCC
ATATAGGTGAGGGAAGCCTGAAAAACTAAGATGCTGCCTGCCCAGTGCACACAAGTGTAGGTATCATTTTCTGCA
TTTAACCGTCAATAGGCAAAGGGGGGAAGGGACATATTCATTTGGAAATAAGCTGCCTTGAGCCTTAAAACCCAC
AAAAGTACAATTTACCAGCCTCCGTATTTCAGACTGAATGGGGGTGGGGGGGCGCCTTAGGTACTTATTCCAGA
TGCCTTCTCCAGACAAACCAGAAGCAACAGAAAAAATCGTCTCTCCCTCCCTTTGAAATGAATATACCCCTTAGT
GTTTGGGTATATTCATTTCAAAGGGAGAGAGAGAGGTTTTTTTCTGTTCTTTCTCATATGATTGTGCACATACTT
GAGACTGTTTTGAATTTGGGGGATGGCTAAAACCATCATAGTACAGGTAAGGTGAGGGAATAGTAAGTGGTGAGA
ACTACTCAGGGAATGAAGGTGTCAGAATAATAAGAGGTGCTACTGACTTTCTCAGCCTCTGAATATGAACGGTGA
GCATTGTGGCTGTCAGCAGGAAGCAACGAAGGGAAATGTCTTTCCTTTTGCTCTTAAGTTGTGGAGAGTGCAACA
GTAGCATAGGACCCTACCCTCTGGGCCAAGTCAAAGACATTCTGACATCTTAGTATTTGCATATTCTTATGTATG

FIGURE 514B

TGAAAGTTACAAATTGCTTGAAAGAAAATATGCATCTAATAAAAAACACCTTCTA

FIGURE 515

MDYQVSSPIYDINYYTSEPCQKINVKQIAARLLPPLYSLVFIFGFVGNMLVILILINCKRLKSMTDIYLLNLAIS
DLFFLLTVPFWAHYAAAQWDFGNTMCQLLTGLYFIGFFSGIFFIILLTIDRYLAVVHAVFALKARTVTFGVVTSV
ITWVVAVFASLPGIIFTRSQKEGLHYTCSSHFPYSQYQFWKNFQTLKIVILGLVLPLLVMVICYSGILKTLLRCR
NEKKRHRAVRLIFTIMIVYFLFWAPYNIVLLLNTFQEFFGLNNCSSSNRLDQAMQVTETLGMTHCCINPIIYAFV
GEKFRNYLLVFFQKHIAKRFCKCCSIFQQEAPERASSVYTRSTGEQEISVGL

FIGURE 516A

TGCAGAGAACAGAGAAAGGACATCTGCGAGGAAAGTTCCCTGATGGCTGTCAACAAAGTGCCACGTCTCTATGGC
TGTGTACGCTGAGCACACGATTTTATCGCGCCTATCATATCTTGGTGCATAAACGCACCTCACCTCGGTCAACCC
TTGCTCCGTCTTATGAGACAGGCTTTATTATCCGCATTTTATATGAGGGGAATCTGACGGTGGAGAGAGAATTAT
CTTGCTCAAGGCGACACAGCAGAGCCCACAGGTGGCAGAATCCCACCCGAGCCCGCTTCGACCCGCGGGGTGGAA
ACCACGGGCGCCCGCCCGGCTGCGCTTCCAGAGCTGAACTGAGAAGCGAGTCCTCTCCGCCCTGCGGCCACCGCC
CAGCCCCGACCCCCGCCCCGGCCCGATCCTCACTCGCCGCCAGCTCCCCGCGCCCACCCCGGAGTTGGTGGCGCA
GAGGCGGGAGGCGGAGGCGGGAGGCGGGCGCTGGCACCGGGAACGCCCGAGCGCCGGCAGAGAGCGCGGAGAGC
GCGACACGTGCGGCCCAGAGCACCGGGGCCACCCGGTCCCCGCAGGCCCGGGACCGCGCCCGCTGGCAGGCGACA
CGTGGAAGAATACGGAGTTCTATACCAGAGTTGATTGTTG**ATG**GCACATACTTTTAGAGGATGCTCATTGGCATT
TATGTTTATAATCACGTGGCTGTTGATTAAAGCAAAAATAGATGCGTGCAAGAGAGGCGATGTGACTGTGAAGCC
TTCCCATGTAATTTTACTTGGATCCACTGTCAATATTACATGCTCTTTGAAGCCCAGACAAGGCTGCTTTCACTA
TTCCAGACGTAACAAGTTAATCCTGTACAAGTTTGACAGAAGAATCAATTTTCACCATGGCCACTCCCTCAATTC
TCAAGTCACAGGTCTTCCCCTTGGTACAACCTTGTTTGTCTGCAAACTGGCCTGTATCAATAGTGATGAAATTCA
AATATGTGGAGCAGAGATCTTCGTTGGTGTTGCTCCAGAACAGCCTCAAAATTTATCCTGCATACAGAAGGGAGA
ACAGGGGACTGTGGCCTGCACCTGGGAAAGAGGACGAGACACCCACTTATACACTGAGTATACTCTACAGCTAAG
TGGACCAAAAAATTTAACCTGGCAGAAGCAATGTAAAGACATTTATTGTGACTATTTGGACTTTGGAATCAACCT
CACCCCTGAATCACCTGAATCCAATTTCACAGCCAAGGTTACTGCTGTCAATAGTCTTGGAAGCTCCTCTTCACT
TCCATCCACATTCACATTCTTGGACATAGTGAGGCCTCTTCCTCCGTGGGACATTAGAATCAAATTTCAAAAGGC
TTCCGTGAGCAGATGTACCCTTTATTGGAGAGATGAGGGACTGGTACTGCTTAATCGACTCAGATATCGGCCCAG
TAACAGCAGGCTCTGGAATATGGTTAATGTTACAAAGGCCAAAGGAAGACATGATTTGCTGGATCTGAAACCATT
TACAGAATATGAATTTCAGATTTCCTCTAAGCTACATCTTTATAAGGGAAGTTGGAGTGATTGGAGTGAATCATT
GAGAGCACAAACACCAGAAGAAGAGCCTACTGGGATGTTAGATGTCTGGTACATGAAACGGCACATTGACTACAG
TAGACAACAGATTTCTCTTTTCTGGAAGAATCTGAGTGTCTCAGAGGCAAGAGGAAAAATTCTCCACTATCAGGT
GACCTTGCAGGAGCTGACAGGAGGGAAAGCCATGACACAGAACATCACAGGACACACCTCCTGGACCACAGTCAT
TCCTAGAACCGGAAATTGGGCTGTGGCTGTGTCTGCAGCAAATTCAAAAGGCAGTTCTCTGCCCACTCGTATTAA
CATAATGAACCTGTGTGAGGCAGGGTTGCTGGCTCCTCGCCAGGTCTCTGCAAACTCAGAGGGCATGGACAACAT
TCTGGTGACTTGGCAGCCTCCCAGGAAAGATCCCTCTGCTGTTCAGGAGTACGTGGTGGAATGGAGAGAGCTCCA
TCCAGGGGGTGACACACAGGTCCCTCTAAACTGGCTACGGAGTCGACCCTACAATGTGTCTGCTCTGATTTCAGA
GAACATAAAATCCTACATCTGTTATGAAATCCGTGTGTATGCACTCTCAGGGGATCAAGGAGGATGCAGCTCCAT
CCTGGGTAACTCTAAGCACAAAGCACCACTGAGTGGCCCCCACATTAATGCCATCACAGAGGAAAAGGGGAGCAT
TTTAATTTCATGGAACAGCATTCCAGTCCAGGAGCAAATGGGCTGCCTCCTCCATTATAGGATATACTGGAAGGA
ACGGGACTCCAACTCCCAGCCTCAGCTCTGTGAAATTCCCTACAGAGTCTCCCAAAATTCACATCCAATAAACAG
CCTGCAGCCCCGAGTGACATATGTCCTGTGGATGACAGCTCTGACAGCTGCTGGTGAAAGTTCCCACGGAAATGA
GAGGGAATTTTGTCTGCAAGGTAAAGCCAATTGGATGGCGTTTGTGGCACCAAGCATTTGCATTGCTATCATCAT
GGTGGGCATTTTCTCAACGCATTACTTCCAGCAAAAGGTGTTTGTTCTCCTAGCAGCCCTCAGACCTCAGTGGTG
TAGCAGAGAAATTCCAGATCCAGCAAATAGCACTTGCGCTAAGAAATATCCCATTGCAGAGGAGAAGACACAGCT
GCCCTTGGACAGGCTCCTGATAGACTGGCCCACGCCTGAAGATCCTGAACCGCTGGTCATCAGTGAAGTCCTTCA
TCAAGTGACCCCAGTTTTCAGACATCCCCCCTGCTCCAACTGGCCACAAAGGGAAAAAGGAATCCAAGGTCATCA
GGCCTCTGAGAAAGACATGATGCACAGTGCCTCAAGCCCACCACCTCCAAGAGCTCTCCAAGCTGAGAGCAGACA
ACTGGTGGATCTGTACAAGGTGCTGGAGAGCAGGGGCTCCGACCCAAAGCCAGAAAACCCAGCCTGTCCCTGGAC
GGTGCTCCCAGCAGGTGACCTTCCCACCCATGATGGCTACTTACCCTCCAACATAGATGACCTCCCCTCACATGA
GGCACCTCTCGCTGACTCTCTGGAAGAACTGGAGCCTCAGCACATCTCCCTTTCTGTTTTCCCCTCAAGTTCTCT
TCACCCACTCACCTTCTCCTGTGGTGATAAGCTGACTCTGGATCAGTTAAAGATGAGGTGTGACTCCCTCATGCT
C**TGA**GTGGTGAGGCTTCAAGCCTTAAAGTCAGTGTGCCCTCAACCAGCACAGCCTGCCCCAATTCCCCCAGCCCC
TGCTCCAGCAGCTGTCATCTCTGGGTGCCACCATCGGTCTGGCTGCAGCTAGAGGACAGGCAAGCCAGCTCTGGG
GGAGTCTTAGGAACTGGGAGTTGGTCTTCACTCAGATGCCTCATCTTGCCTTTCCCAGGGCCTTAAAATTACATC
CTTCACTGTGTGGACCTAGAGACTCCAACTTGAATTCCTAGTAACTTTCTTGGTATGCTGGCCAGAAAGGGAAAT
GAGGAGGAGAGTAGAAACCACAGCTCTTAGTAGTAATGGCATACAGTCTAGAGGACCATTCATGCAATGACTATT

FIGURE 516B

TCTAAAGCACCTGCTACACAGCAGGCTGTACACAGCAGATCAGTACTGTTCAACAGAACTTCCTGAGATGATGGA
AATGTTCTACCTCTGCACTCACTGTCCAGTACATTAGACACTAGGCACATTGGCTGTTAATCACTTGGAATGTGT
TTAGCTTGACTGAGGAATTAAATTTTGATTGTAAATTTAAATCGCCACACATGGCTAGTGGCTACTGTATTGGAG
TGCACAGCTCTAGATGGCTCCTAGATTATTGAGAGCCTCCAAAACAAATCAACCTAGTTCTATAGATGAAGACAT
AAAAGACACTGGTAAACACCAATGTAAAAGGGCCCCCAAGGTGGTCATGACTGGTCTCATTTGCAGAAGTCTAAG
AATGTACCTTTTTCTGGCCGGGCGTGGTAGCTCATGCCTGTAATCCCAGCACTTTGGGAGGCTGA

FIGURE 517

MAHTFRGCSLAFMFIITWLLIKAKIDACKRGDVTVKPSHVILLGSTVNITCSLKPRQGCFHYSRRNKLILYKFDR
RINFHHGHSLNSQVTGLPLGTTLFVCKLACINSDEIQICGAEIFVGVAPEQPQNLSCIQKGEQGTVACTWERGRD
THLYTEYTLQLSGPKNLTWQKQCKDIYCDYLDFGINLTPESPESNFTAKVTAVNSLGSSSSLPSTFTFLDIVRPL
PPWDIRIKFQKASVSRCTLYWRDEGLVLLNRLRYRPSNSRLWNMVNVTKAKGRHDLLDLKPFTEYEFQISSKLHL
YKGSWSDWSESLRAQTPEEEPTGMLDVWYMKRHIDYSRQQISLFWKNLSVSEARGKILHYQVTLQELTGGKAMTQ
NITGHTSWTTVIPRTGNWAVAVSAANSKGSSLPTRINIMNLCEAGLLAPRQVSANSEGMDNILVTWQPPRKDPSA
VQEYVVEWRELHPGGDTQVPLNWLRSRPYNVSALISENIKSYICYEIRVYALSGDQGGCSSILGNSKHKAPLSGP
HINAITEEKGSILISWNSIPVQEQMGCLLHYRIYWKERDSNSQPQLCEIPYRVSQNSHPINSLQPRVTYVLWMTA
LTAAGESSHGNEREFCLQGKANWMAFVAPSICIAIIMVGIFSTHYFQQKVFVLLAALRPQWCSREIPDPANSTCA
KKYPIAEEKTQLPLDRLLIDWPTPEDPEPLVISEVLHQVTPVFRHPPCSNWPQREKGIQGHQASEKDMMHSASSP
PPPRALQAESRQLVDLYKVLESRGSDPKPENPACPWTVLPAGDLPTHDGYLPSNIDDLPSHEAPLADSLEELEPQ
HISLSVFPSSSLHPLTFSCGDKLTLDQLKMRCDSLML

FIGURE 518

CATTCAGAGACAGAAGGTGGATAGACAAATCTCCACCTTCAGACTGGTAGGCTCCTCCAGAAGCCATCAGACAGG
AAGATGTGAAAATCCCCAGCACTCATCCCAGAATCACTAAGTGGCACCTGTCCTGGGCCAAAGTCCCAGGACAGA
CCTCATTGTTCCTCTGTGGGAATACCTCCCCAGGAGGGCATCCTGGATTTCCCCCTTGCAACCCAGGTCAGAAGT
TTCATCGTCAAGGTTGTTTCATCTTTTTTTTCCTGTCTAACAGCTCTGACTACCACCCAACCTTGAGGCACAGTG
AAGACATCGGTGGCCACTCCAATAACAGCAGGTCACAGCTGCTCTTCTGGAGGTGTCCTACAGGTGAAAAGCCCA
GCGACCCAGTCAGGATTTAAGTTTACCTCAAAA**ATG**GAAGATTTTAACATGGAGAGTGACAGCTTTGAAGATTTC
TGGAAAGGTGAAGATCTTAGTAATTACAGTTACAGCTCTACCCTGCCCCCTTTTCTACTAGATGCCGCCCCATGT
GAACCAGAATCCCTGGAAATCAACAAGTATTTTGTGGTCATTATCTATGCCCTGGTATTCCTGCTGAGCCTGCTG
GGAAACTCCCTCGTGATGCTGGTCATCTTATACAGCAGGGTCGGCCGCTCCGTCACTGATGTCTACCTGCTGAAC
CTAGCCTTGGCCGACCTACTCTTTGCCCTGACCTTGCCCATCGGGCCGCCTCCAAGGTGAATGGCTGGATTTTT
GGCACATTCCTGTGCAAGGTGGTCTCACTCCTGAAGGAAGTCAACTTCTATAGTGGCATCCTGCTACTGGCCTGC
ATCAGTGTGGACCGTTACCTGGCCATTGTCCATGCCACACGCACACTGACCCAGAAGCGCTACTTGGTCAAATTC
ATATGTCTCAGCATCTGGGGTCTGTCCTTGCTCCTGGCCCTGCCTGTCTTACTTTTCCGAAGGACCGTCTACTCA
TCCAATGTTAGCCCAGCCTGCTATGAGGACATGGGCAACAATACAGCAAACTGGCGGATGCTGTTACGGATCCTG
CCCCAGTCCTTTGGCTTCATCGTGCCACTGCTGATCATGCTGTTCTGCTACGGATTCACCCTGCGTACGCTGTTT
AAGGCCCACATGGGGCAGAAGCACCGGGCCATGCGGGTCATCTTTGCTGTCGTCCTCATCTTCCTGCTCTGCTGG
CTGCCCTACAACCTGGTCCTGCTGGCAGACACCCTCATGAGGACCCAGGTGATCCAGGAGACCTGTGAGCGCCGC
AATCACATCGACCGGGCTCTGGATGCCACCGAGATTCTGGGCATCCTTCACAGCTGCCTCAACCCCCTCATCTAC
GCCTTCATTGGCCAGAAGTTTCGCCATGGACTCCTCAAGATTCTAGCTATACATGGCTTGATCAGCAAGGACTCC
CTGCCCAAAGACAGCAGGCCTTCCTTTGTTGGCTCTTCTTCAGGGCACACTTCCACTACTCTC**TAA**GACCTCCTG
CCTAAGTGCAGCCCGTGGGGTTCCTCCCTTCTCTTCACAGTCACATTCCAAGCCTCATGTCCACTGGTTCTTCTT
GGTCTCAGTGTCAATGCAGCCCCCATTGTGGTCACAGGAAGTAGAGGAGGCCACGTTCTTACTAGTTTCCCTTGC
ATGGTTTAGAAAGCTTGCCCTGGTGCCTCACCCCTTGCCATAATTACTATGTCATTTGCTGGAGCTCTGCCCATC
CTGCCCCTGAGCCCATGGCACTCTATGTTCTAAGAAGTGAAAATCTACACTCCAGTGAGACAGCTCTGCATACTC
ATTAGGATGGCTAGTATCAAAAGAAAGAAAATCAGGCTGGCCAACGGGGTGAAACCTGTCTCTACTAAAAATACA
AAAAAAAAAAAAAAATTAGCCGGGCGTGGTGGTGAGTGCCTGTAATCACAGCTACTTGGGAGGCTGAGATGGGAGA
ATCACTTGAACCCGGGAGCAGAGGTTGCAGTGAGCCGAGATTGTGCCCCTGCCATCCAGCCTGAGCGACAGTGAG
ACTCTGTCTCAGTCCATGAAGATGTAGAGGAGAAACTGGAACTCTCGAGCGTTGCTGGGGGGGATTGTAAAATGG
TGTGACCACTGCAGAAGACAGTATGGCAGCTTTCCTCAAAACTTCAGACATAGAATTAACACATGATCCTGCAAT
TCCACTTATAGGAATTGACCCACAAGAAATGAAAGCAGGGACTTGAACCCATATTTGTACACCAATATTCATAGC
AGCTTATTCACAAGACCCAAAAGGCAGAAGCAACCCAAATGTTCATCAATGAATGAATGAATGGCTAAGCAAAAT
GTGATATGTACCTAACGAAGTATCCTTCAGCCTGAAAGAGGAATGAAGTACTCATACATGTTACAACACGGACGA
ACCTTGAAAACTTTATGCTAAGTGAAATAAGCCAGACATCAACAGATAAATAGTTTATGATTCCACCTACATGAG
GTACTGAGAGTGAACAAATTTACAGAGACAGAAAGCAGAACAGTGATTACCAGGGACTGAGGGGAGGGGAGCATG
GGAAGTGACGGTTTAATGGGCACAGGGTTTATGTTTAGGATGTTGAAAAAGTTCTGCAGATAAACAGTAGTGATA
GTTGTACCGCAATGTGACTTAATGCCACTAAATTGACACTTAAAAATGGTTTAAATGGTCAATTTTGTTATGTAT
ATTTTATATCAATTTAAAAAAAAACCTGAGCCCCAAAAGGTATTTAATCACCAAGGCTGATTAAACCAAGGCTA
GAACCACCTGCCTATATTTTTTGTTAAATGATTTCATTCAATATCTTTTTTTTAATAAACCATTTTTACTTGGGT
GTTTAT

FIGURE 519

MEDFNMESDSFEDFWKGEDLSNYSYSSTLPPFLLDAAPCEPESLEINKYFVVIIYALVFLLSLLGNSLVMLVILY
SRVGRSVTDVYLLNLALADLLFALTLPIWAASKVNGWIFGTFLCKVVSLLKEVNFYSGILLLACISVDRYLAIVH
ATRTLTQKRYLVKFICLSIWGLSLLLALPVLLFRRTVYSSNVSPACYEDMGNNTANWRMLLRILPQSFGFIVPLL
IMLFCYGFTLRTLFKAHMGQKHRAMRVIFAVVLIFLLCWLPYNLVLLADTLMRTQVIQETCERRNHIDRALDATE
ILGILHSCLNPLIYAFIGQKFRHGLLKILAIHGLISKDSLPKDSRPSFVGSSSGHTSTTL

FIGURE 520

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TTGGGGGTTTATTCTCTTCCCTTCTAACTTGACAGGGTCTTGCTCTGTCATTCAGGCAAGAGTGCAGTAGTGTGA
TCACTTCTTACTGCCGCCTCAAGCTTCCAGCCTCAACTCAAGCAATCCTCCCACCTCAGCCACCCAAGTGGCTGG
GACTACAGATTAAGAATGACCCAAAATAAATTAAAGCTTTGTTCCAAAGCCAATGTGTATACTGAAGTGCCTGAT
GGAGGATGGGGCTGGGCGGTAGCTGTTTCATTTTTCTTCGTTGAAGTCTTCACCTACGGCATCATCAAGACATTT
GGTGTCTTCTTTAATGACTTAATGGACAGTTTTAATGAATCCAATAGCAGGATCTCATGGATAATCTCAATCTGT
GTGTTTGTCTTAACATTTTCAGCTCCCCTCGCCACAGTCCTGAGCAATCGTTTCGGACACCGTCTGGTAGTGATG
TTGGGGGGGCTACTTGTCAGCACCGGGATGGTGGCCGCCTCCTTCTCACAAGAGGTTTCTCATATGTACGTCGCC
ATCGGCATCATCTCTGGTCTGGGATACTGCTTTAGTTTTCTCCCAACTGTAACCATCCTATCACAATATTTTGGC
AAAAGACGTTCCATAGTCACTGCAGTTGCTTCCACAGGAGAATGTTTCGCTGTGTTTGCTTTCGCACCAGCAATC
ATGGCTCTGAAGGAGCGCATTGGCTGGAGATACAGCCTCCTCTTCGTGGGCCTACTACAGTTAAACATTGTCATC
TTCGGAGCACTGCTCAGACCCATCATTATCAGAGGACCAGCGTCACCGAAAATAGTCATCCAGGAAAATCGGAAA
GAAGCGCAGTATATGCTTGAAAATGAGAAAACACGAACCTCAATAGACTCCATTGACTCAGGAGTAGAACTAACT
ACCTCACCTAAAAATGTGCCTACTCACACTAACCTGGAACTGGAGCCGAAGGCCGACATGCAGCAGGTCCTGGTG
AAGACCAGCCCCAGGCCAAGCGAAAAGAAAGCCCCGCTATTAGACTTCTCCATTTTGAAAGAGAAAAGTTTTATT
TGTTATGCATTATTTGGTCTCTTTGCAACACTGGGATTCTTTGCACCTTCCTTGTACATCATTCCTCTGGGCATT
AGTCTGGGCATTGACCAGGACCGCGCTGCTTTTTTATTATCTACGATGGCCATTGCAGAAGTTTTCGGAAGGATC
GGAGCTGGTTTTGTCCTCAACAGGGAGCCCATTCGTAAGATTTACATTGAGCTCATCTGCGTCATCTTATTGACT
GTGTCTCTGTTTGCCTTTACTTTTGCTACTGAATTCTGGGGTCTAATGTCATGCAGCATATTTTTTGGGTTTATG
GTTGGAACAATAGGAGGACTCACATTCCACTGCTTGCTGAAGATGATGTCGTGGGCATTGCAGAAGATGTCTTCT
GCAGCTGGGGTCTACATCTTCATTCAGAGCATAGCAGGACTGGCTGGACCGCCCCTTGCAGGTTTGTTGGTGGAC
CAAAGTAAGATCTACAGCAGGGCCTTCTACTCCTGCGCAGCTGGCATGGCCCTGGCTGCTGTGTGCCTCGCCCTG
GTGAGACCGTGTAAGATGGGACTGTGCCAGCGTCATCACTCAGGTGAAACAAAGGTAGTGAGCCATCGTGGGAAG
ACTTTACAGGACATACCTGAAGACTTTCTGGAAATGGATCTTGCAAAAAATGAGCACAGAGTTCACGTGCAAATG
GAGCCGGTATGACACACTTTCTTACAACAACAGCCACTGTGTTGGCTGGAGAGGGATGGGGTGGGCCCAACGGGG
ACACAAGGAGGCAGAGGAGCTAACCCCTCTACTCCACTTTCAAAACTACATTTTAAAGGGAATGTGTATGTGAAG
AGCACTACCAACATCGCTTTTGTTTTGTTTTGTTTTGTTTTAAGCTTTTTTTTTTTGCTTGTTTTTAAAGCCAAA
ACAAAAAACAACCAAGCACTCTTCCATATATAAATCTGGCTGTATTCAGTAGCAATACAAGAGATATGTAGAAAG
ACTCTTTGGTTCACATTCCGATATTAAAATAGTGACATGAACTGGCAAAGTGGTTTTAAAAGCTTTCACGTGGGA
TAAATGATTTTCTTTTTTTCTTTTCTTTCTTCCTATGGTCTTGTCTGAATAAACTACTCTCCTGAATAAACAAC
ATCCAACCCAGGTCATTGAAATGAAATTGGCCAGTC
```

FIGURE 521

MTQNKLKLCSKANVYTEVPDGGWGWAVAVSFFFVEVFTYGIIKTFGVFFNDLMDSFNESNSRISWIISICVFVLT
FSAPLATVLSNRFGHRLVVMLGGLLVSTGMVAASFSQEVSHMYVAIGIISGLGYCFSFLPTVTILSQYFGKRRSI
VTAVASTGECFAVFAFAPAIMALKERIGWRYSLLFVGLLQLNIVIFGALLRPIIIRGPASPKIVIQENRKEAQYM
LENEKTRTSIDSIDSGVELTTSPKNVPTHTNLELEPKADMQQVLVKTSPRPSEKKAPLLDFSILKEKSFICYALF
GLFATLGFFAPSLYIIPLGISLGIDQDRAAFLLSTMAIAEVFGRIGAGFVLNREPIRKIYIELICVILLTVSLFA
FTFATEFWGLMSCSIFFGFMVGTIGGLTFHCLLKMMSWALQKMSSAAGVYIFIQSIAGLAGPPLAGLLVDQSKIY
SRAFYSCAAGMALAAVCLALVRPCKMGLCQRHHSGETKVVSHRGKTLQDIPEDFLEMDLAKNEHRVHVQMEPV

FIGURE 522

GCGGGGTAGTCGGCGCGAGGCGGAGCTTGGCAGTTCCGTCCACTTCAGCCGCAGCGTCCCTCGCCGGGTGTCTCG
CCGCAGCCTCCGGAGAGGAACAGACCCTCACTCTCTCTGTCAGAAAA**ATG**TCTGCTCCAGCTCAGCCACCTGCTG
AAGGGACAGAAGGGACTGCCCCAGGTGGGGGTCCCCCTGGCCCTCCTCCTAACATGACCAGTAACAGACGACTAC
AGCAAACCCAGGCACAAGTGGAGGAGGTGGTGGACATCATACGTGTGAACGTGGACAAGGTCCTGGAGAGGGACC
AGAAGCTGTCAGAGCTGGATGACCGAGCTGATGCCTTGCAGGCAGGAGCATCACAATTTGAGAGCAGTGCTGCCA
AGCTAAAGAGGAAGTATTGGTGGAAAAACTGCAAGATGATGATCATGCTGGGAGCCATCTGTGCCATCATCGTGG
TAGTTATTGTAAGGCGGGAC**TGA**AGAGCTGGAAGAAAGCAGTCAGTACCCTCCCAACGGCCCCCCTCGAAGGTCT
CCACTCTCCTCTGGGCTCCTCCTTGCCTAATGCAGGGGGTCACCGCTGGAGAAGAACCACCACTGTCCTCGATGT
GTCCCAAGCCTGGAGCGAATCCGTCCTCTTGGCTCTCCCAGCCCTATCACAGGAATCATTCCTGGGTTTCTGTCC
CTCTGAGGCTCACCAGGTGTAGTTGGCCTTGTTCTTTGGGGGTATTAGCCCTTCTACTTTCTTTCTCACCCACCC
TGTACCCTCTTCTGTGTGTCTCTGCTATCCCCCTTTCCTCCCACCACCCATGTGCATGAGCAAATGTGCAACAAA
ACCCTGGGACTTTGCAGTCAAATGAAGCTGA

FIGURE 523

MSAPAQPPAEGTEGTAPGGGPPGPPPNMTSNRRLQQTQAQVEEVVDIIRVNVDKVLERDQKLSELDDRADALQAG
ASQFESSAAKLKRKYWWKNCKMMIMLGAICAIIVVVIVRRD

FIGURE 524

CACACCCTGACAAGCTGCCAGGCAGGTTCTCTTCCTCTCACATACTGACCCACGGCTCCACCCTCTCTCCCCTGG
AAAGGACACC**ATG**AGCACTGAAAGCATGATCCGGGACGTGGAGCTGGCCGAGGAGGCGCTCCCCAAGAAGACAGG
GGGGCCCCAGGGCTCCAGGCGGTGCTTGTTCCTCAGCCTCTTCTCCTTCCTGATCGTGGCAGGCGCCACCACGCT
CTTCTGCCTGCTGCACTTTGGAGTGATCGGCCCCCAGAGGGAAGAGTCCCCCAGGGACCTCTCTCTAATCAGCCC
TCTGGCCCAGGCAGTCAGATCATCTTCTCGAACCCCGAGTGACAAGCCTGTAGCCCATGTTGTAGCAAACCCTCA
AGCTGAGGGGCAGCTCCAGTGGCTGAACCGCCGGGCCAATGCCCTCCTGGCCAATGGCGTGGAGCTGAGAGATAA
CCAGCTGGTGGTGCCATCAGAGGGCCTGTACCTCATCTACTCCCAGGTCCTCTTCAAGGGCCAAGGCTGCCCCTC
CACCCATGTGCTCCTCACCCACACCATCAGCCGCATCGCCGTCTCCTACCAGACCAAGGTCAACCTCCTCTCTGC
CATCAAGAGCCCCTGCCAGAGGGAGACCCCAGAGGGGGCTGAGGCCAAGCCCTGGTATGAGCCCATCTATCTGGG
AGGGGTCTTCCAGCTGGAGAAGGGTGACCGACTCAGCGCTGAGATCAATCGGCCCGACTATCTCGACTTTGCCGA
GTCTGGGCAGGTCTACTTTGGGATCATTGCCCTG**TGA**GGAGGACGAACATCCAACCTTCCCAAACGCCTCCCCTG
CCCCAATCCCTTTATTACCCCCTCCTTCAGACACCCTCAACCTCTTCTGGCTCAAAAAGAGAATTGGGGGCTTAG
GGTCGGAACCCAAGCTTAGAACTTTAAGCAACAAGACCACCACTTCGAAACCTGGGATTCAGGAATGTGTGGCCT
GCACAGTGAAGTGCTGGCAACCACTAAGAATTCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGAT
CCCTGACATCTGGAATCTGGAGACCAGGGAGCCTTTGGTTCTGGCCAGAATGCTGCAGGACTTGAAGAACCTCA
CCTAGAAATTGACACAAGTGGACCTTAGGCCTTCCTCTCTCCAGATGTTTCCAGACTTCCTTGAGACACGGAGCC
CAGCCCTCCCCATGGAGCCAGCTCCCTCTATTTATGTTTGCACTTGTGATTATTTATTATTTATTTATTATTTAT
TTATTTACAGATGAATGTATTTATTTGGGAGACCGGGGTATCCTGGGGGACCCAATGTAGGAGCTGCCTTGGCTC
AGACATGTTTTCCGTGAAAACGGAGGCTGAACAATAGGCTGTTCCCATGTAGCCCCCTGGCCTCTGTGCCTTCTT
TTGATTATGTTTTTTAAAATATTATCTGATTAAGTTGTCTAAACAATGCTGATTTGGTGACCAACTGTCACTCAT
TGCTGAGGCCTCTGCTCCCCAGGGAGTTGTGTCTGTAATCGGCCTACTATTCAGTGGCGAGAAATAAAGGTTGCT
TAGGAAAGAA

FIGURE 525

MSTESMIRDVELAEEALPKKTGGPQGSRRCLFLSLFSFLIVAGATTLFCLLHFGVIGPQREESPRDLSLISPLAQ
AVRSSSRTPSDKPVAHVVANPQAEGQLQWLNRRANALLANGVELRDNQLVVPSEGLYLIYSQVLFKGQGCPSTHV
LLTHTISRIAVSYQTKVNLLSAIKSPCQRETPEGAEAKPWYEPIYLGGVFQLEKGDRLSAEINRPDYLDFAESGQ
VYFGIIAL

FIGURE 526A

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CATGGCGGCGACTGCGGCAAAGCGAGAGCCTCGGAGACGCCGCTGCCGCCAGCACAGCCGGAGATCTGAGCCGAC
ACTGGGGGCAGTCCGCGAGCCCCGCACTCTCTCGATGAGTCGGAGAAGTCCCGTTGTATCAGAGTAAGATGGACG
GTAGCTTTGATTGTGATTGTGGTGAGCTGGAGCCACCTGATCACTAACAAAAGACATCTTCTGTTAACCAACAGC
CGCCAGGCTTCCTGTTGAAATAAATATATAGCAACAAAGGAAAAAAAGAAGCAAAACGGAAATAGTGCTTACCAG
CACCTTAGAATGATGCTGCTCAGGACCAGTCCAACACTGAATGTATCTGCACTGTGAGGAGAATGTTCATAGAAG
CCTGTTGTGTGCATATTTATTCACTTTTTGTTAAATGTTAAATCGTTTAGCACGGTAATCTGAGTGCACAGTATG
TCATTTCATTCCGTTTGAGTTTCTTGTTTTCGTTAAATGTCTGCAGAGTTGCTGCCCCTTTCTTGAACTATGAGT
ACTGCAATCTTTTTAATTCTCAATATGAATAGAGCTTTTTGAGCTTTAAATCTAAGGGGAACTCGACAGGCCTGT
TTGGCATATGCAATGAACATCAAGAAACCATCTTGCTGTGGAAGCATAATTATTTTTCTTCTCCCTTTTTGAAAG
ATCTTTCCTTTTGATGCCAGTTTTCTTCCTTGTTACACAAGTTCAATTTGAAAGGAAAAGGCAATAGTAAGGGT
TTCAAA**ATG**GCAGAGAAATTTGAAAGTCTCATGAACATTCATGGTTTTGATCTGGGTTCTAGGTATATGGACTTA
AAACCATTGGGTTGTGGAGGCAATGGCTTGGTTTTTTCTGCTGTAGACAATGACTGTGACAAAAGAGTAGCCATC
AAGAAAATTGTCCTTACTGATCCCCAGAGTGTCAAACATGCTCTACGTGAAATCAAAATTATTAGAAGACTTGAC
CATGATAACATTGTGAAAGTGTTTGAGATTCTTGGTCCCAGTGGAAGCCAATTAACAGACGATGTGGGCTCTCTT
ACGGAACTGAACAGTGTTTACATTGTTCAGGAGTACATGGAGACAGACTTGGCTAATGTGCTGGAGCAGGGCCCT
TTACTGGAAGAGCATGCCAGGCTTTTCATGTATCAGCTGCTACGGGGGCTCAAGTATATTCACTCTGCAAATGTA
CTGCACAGAGATCTCAAACCAGCTAATCTTTTCATTAATACGGAAGACTTGGTGCTGAAGATAGGTGACTTTGGT
CTTGCACGGATCATGGATCCTCATTATTCCCATAAGGGTCATCTTTCTGAAGGATTGGTTACTAAATGGTACAGA
TCTCCACGTCTTTTACTTTCTCCTAATAATTATACTAAAGCCATTGACATGTGGGCTGCAGGCTGCATCTTTGCT
GAAATGCTGACTGGTAAAACCCTTTTTGCAGGTGCACATGAACTTGAACAGATGCAGCTGATTTTAGAATCTATT
CCTGTTGTACATGAGGAAGATCGTCAGGAGCTTCTCAGCGTAATTCCAGTTTACATTAGAAATGACATGACTGAG
CCACACAAACCTTTAACTCAGCTGCTTCCAGGAATTAGTCGAGAAGCACTGGATTTCCTGGAACAAATTTTGACA
TTTAGCCCCATGGATCGGTTAACAGCAGAAGAAGCACTCTCCCATCCTTACATGAGCATATATTCTTTTCCAATG
GATGAGCCAATTTCAAGCCATCCTTTTCATATTGAAGATGAAGTTGATGATATTTTGCTTATGGATGAAACTCAC
AGTCACATTTATAACTGGGAAAGGTATCATGATTGTCAGTTTTCAGAGCATGATTGGCCTGTACATAACAACTTT
GATATTGATGAAGTTCAGCTTGATCCAAGAGCTCTGTCCGATGTCACTGATGAAGAAGAAGTACAAGTTGATCCC
CGAAAATATTTGGATGGAGATCGGGAAAAGTATCTGGAGGATCCTGCTTTTGATACCAATTACTCTACTGAGCCT
TGTTGGCAATACTCAGATCATCATGAAAACAAATATTGTGATCTGGAGTGTAGCCATACTTGTAACTACAAAACG
AGGTCATCATCATATTTAGATAACTTAGTTTGGAGAGAGAGTGAAGTTAACCATTACTATGAACCCAAGCTTATT
ATAGATCTTTCCAATTGGAAAGAACAAAGCAAAGAAAAATCTGATAAGAAAGGCAAATCAAAATGTGAAAGGAAT
GGATTGGTTAAAGCCCAGATAGCGCTAGAGGAAGCATCACAGCAACTGGCTGGAAAAGAAAGGGAAAAGAATCAG
GGATTTGATTTTGATTCCTTTATTGCAGGAACTATTCAGCTTAGTTCCCAGCATGAGCCTACTGATGTTGTTGAT
AAATTAAATGACTTGAATAGCTCAGTGTCCCAACTAGAATTGAAAAGTTTGATATCAAAGTCAGTAAGCCAAGAA
AAACAGGAAAAAGGAATGGCAAATCTGGCTCAATTAGAAGCCTTGTACCAGTCTTCTTGGGACAGCCAGTTTGTG
AGTGGTGGGGAGGACTGTTTTTTTCATAAATCAGTTTTGTGAGGTAAGGAAGGATGAACAAGTTGAGAAGGAAAAC
ACTTACACTAGTTACTTGGACAAGTTCTTTAGCAGGAAAGAAGATACTGAAATGCTAGAAACTGAGCCAGTAGAG
GATGGGAAGCTTGGGGAGAGAGGACATGAGGAAGGATTTCTGAACAACAGTGGGGAGTTCCTCTTTAACAAGCAG
CTCGAGTCCATAGGCATCCCACAGTTTCACAGTCCAGTTGGGTCACCACTTAAGTCAATACAGGCCACATTAACA
CCTTCTGCTATGAAATCTTCCCTCAAATTCCTCATCAAACATACAGCAGCATTCTGAAACATCTGAAC**TAA**AAC
ACTCAGCAGACATTTATCTTTGTATTCTTCATGAAATGTGTTTTGTCTTTTTTATTACTAGTGTTTAAGTCATT
TTTTACTTGAATCAGATGGTGTCATTTAGTAAGGATTTTATGAGTTCTTGTTTTTTAAAATCCAGACTTTCTTTT
TCTACATGTGAGATAGTTTTCATTTTAACTGGCATGTCATTTGCACACAAAAATAAAGACTAGAGCAAAATAATG
CAACGCAGGAGGAGAAAGAAATGCACTAAGACAAGAACATTCTCTCATAGAACATTGATCTGTTTACAGGAAA
CAAACCTTGCCTTGAAATTTACACAGTGAGACTGTACATAATTGCATGAAAATAGCTATTTTTTTCCTAAGACAT
TTTTCATTCATGAATATTTTCAAGTTTTTCATACTGTACACATTTCTTAAAACACATGATACCAGCAGCAACTGA
AAATGAATGCCGAATTTGGTACACATGTGTTATCTACCTCAAGGTAACAAGAGTATGTGGCAAAACATATACCAC
CCATAGTGCTTCACAAAATGCACTTCTATTTAGCCAGCGTTTATTGTAGTAAACTATTCTTAATAAAACTCACTC
ACTGTTTATAAATGTTCTGGTATGCATTCTTTATAGTGAAGTGTTAATACATCACATCTTATTTATTTTAGCAAA
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FIGURE 526B

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TCAGTATATTTTCTGTATTTAATTATAAAAAATTAACTTAGTTTTTAAAATTTATTTGCAAATATACTTTTTCCA
TTTGGCACTATGGTTTGTTGCCTACCTAGCTGCATCTATAATGTCAGCTTATCCTAAGGCTGTCCACGTACTTAA
TTTACTTAAGTGTTCATTTTAAGTAACGTGCTCACTGTGTATAGGAATTTGTATTTTGGAGGTGCTTGATCTATC
TACAAAGAAAAATTAATTAGGAATTACTTTATTATAAAATGCTCCTAGAAGTCTTAATTGTGTTTATTTTTAAA
AAAACAAATGTTAGACTTGTGTGCATGGAAGTAATTAAGGTACATCATTATTGTAGTTTGAAAGTTGTACATGAT
AAGACATTTTGTTTTTACTGTATGTTTTTACTGAATGATCTATTCCCCATCCCAAGGCAAGCATGAATAAAATTA
GGTTAAACGTAGCATGTGGCATCGCAGTCTCTTAGAATTTGTTTCATCTATTTTATTTTATTGAATACTGTCTGT
ATCTTTGGTTATCCTGTTTGAAGAAAAAGGACAAATAAAACATGGCCAGCAAATACAAAAAAAAAAA
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FIGURE 527

MAEKFESLMNIHGFDLGSRYMDLKPLGCGGNGLVFSAVDNDCDKRVAIKKIVLTDPQSVKHALREIKIIRRLDHD
NIVKVFEILGPSGSQLTDDVGSLTELNSVYIVQEYMETDLANVLEQGPLLEEHARLFMYQLLRGLKYIHSANVLH
RDLKPANLFINTEDLVLKIGDFGLARIMDPHYSHKGHLSEGLVTKWYRSPRLLLSPNNYTKAIDMWAAGCIFAEM
LTGKTLFAGAHELEQMQLILESIPVVHEEDRQELLSVIPVYIRNDMTEPHKPLTQLLPGISREALDFLEQILTFS
PMDRLTAEEALSHPYMSIYSFPMDEPISSHPFHIEDEVDDILLMDETHSHIYNWERYHDCQFSEHDWPVHNNFDI
DEVQLDPRALSDVTDEEEVQVDPRKYLDGDREKYLEDPAFDTNYSTEPCWQYSDHHENKYCDLECSHTCNYKTRS
SSYLDNLVWRESEVNHYYEPKLIIDLSNWKEQSKEKSDKKGKSKCERNGLVKAQIALEEASQQLAGKEREKNQGF
DFDSFIAGTIQLSSQHEPTDVVDKLNDLNSSVSQLELKSLISKSVSQEKQEKGMANLAQLEALYQSSWDSQFVSG
GEDCFFINQFCEVRKDEQVEKENTYTSYLDKFFSRKEDTEMLETEPVEDGKLGERGHEEGFLNNSGEFLFNKQLE
SIGIPQFHSPVGSPLKSIQATLTPSAMKSSPQIPHQTYSSILKHLN

FIGURE 528

GTAAAGCTAGACCGATCTCCGGGGAGCCCCGGAGTAGGCGAGCGGCGGCCGCCAGCTAGTTGAGCGCACCCCCCG
CCCGCCCCAGCGGCGCCGCGGCGGGCGGCGTCCAGGCGGC**ATG**GAGAAGGACGGCCTGTGCCGCGCTGACCAGCA
GTACGAATGCGTGGCGGAGATCGGGGAGGGCGCCTATGGGAAGGTGTTCAAGGCCCGCGACTTGAAGAACGGAGG
CCGTTTCGTGGCGTTGAAGCGCGTGCGGGTGCAGACCGGCGAGGAGGGCATGCCGCTCTCCACCATCCGCGAGGT
GGCGGTGCTGAGGCACCTGGAGACCTTCGAGCACCCCAACGTGGTCAGGTTGTTTGATGTGTGCACAGTGTCACG
AACAGACAGAGAAACCAAACTAACTTTAGTGTTTGAACATGTCGATCAAGACTTGACCACTTACTTGGATAAAGT
TCCAGAGCCTGGAGTGCCCACTGAAACCATAAAGGATATGATGTTTCAGCTTCTCCGAGGTCTGGACTTTCTTCA
TTCACACCGAGTAGTGCATCGCGATCTAAAACCACAGAACATTCTGGTGACCAGCAGCGGACAAATAAAACTCGC
TGACTTCGGCCTTGCCCGCATCTATAGTTTCCAGATGGCTCTAACCTCAGTGGTCGTCACGCTGTGGTACAGAGC
ACCCGAAGTCTTGCTCCAGTCCAGCTACGCCACCCCCGTGGATCTCTGGAGTGTTGGCTGCATATTTGCAGAAAT
GTTTCGTAGAAAGCCTCTTTTTCGTGGAAGTTCAGATGTTGATCAACTAGGAAAAATCTTGGACGTGATTGGACT
CCCAGGAGAAGAAGACTGGCCTAGAGATGTTGCCCTTCCCAGGCAGGCTTTTCATTCAAAATCTGCCCAACCAAT
TGAGAAGTTTGTAACAGATATCGATGAACTAGGCAAAGACCTACTTCTGAAGTGTTTGACATTTAACCCAGCCAA
AAGAATATCTGCCTACAGTGCCCTGTCTCACCCATACTTCCAGGACCTGGAAAGGTGCAAAGAAACCTGGATTC
CCACCTGCCGCCCAGCCAGAACACCTCGGAGCTGAATACAGCC**TGA**GGCCTCAGCAGCCGCCTTAAGCTGATCCT
GCGGAGAACACCCTTGGTGGCTTATGGGTCCCCCTCAGCAAGCCCTACAGAGCTGTGGAGGATTGCTATCTGGAG
GCCTTCCAGCTGCTGTCTTCTGGACAGGCTCTGCTTCTCCAAGGAAA

FIGURE 529

MEKDGLCRADQQYECVAEIGEGAYGKVFKARDLKNGGRFVALKRVRVQTGEEGMPLSTIREVAVLRHLETFEHPN
VVRLFDVCTVSRTDRETKLTLVFEHVDQDLTTYLDKVPEPGVPTETIKDMMFQLLRGLDFLHSHRVVHRDLKPQN
ILVTSSGQIKLADFGLARIYSFQMALTSVVVTLWYRAPEVLLQSSYATPVDLWSVGCIFAEMFRRKPLFRGSSDV
DQLGKILDVIGLPGEEDWPRDVALPRQAFHSKSAQPIEKFVTDIDELGKDLLLKCLTFNPAKRISAYSALSHPYF
QDLERCKENLDSHLPPSQNTSELNTA

FIGURE 530

GTCTGCCCTCTCTGCTCGCCCTGCCTAGCTTGAGGATCTGTCACCCCAGCC**ATG**AGGATTATCGCCCTCCTCGCT
GCTATTCTCTTGGTAGCCCTCCAGGTCCGGGCAGGCCCACTCCAGGCAAGAGGTGATGAGGCTCCAGGCCAGGAG
CAGCGTGGGCCAGAAGACCAGGACATATCTATTTCCTTTGCATGGGATAAAAGCTCTGCTCTTCAGGTTTCAGGC
TCAACAAGGGGCATGGTCTGCTCTTGCAGATTAGTATTCTGCCGGCGAACAGAACTTCGTGTTGGGAACTGCCTC
ATTGGTGGTGTGAGTTTCACATACTGCTGCACGCGTGTCGAT**TAA**CGTTCTGCTGTCCAAGAGAATGTCATGCTG
GGAACGCCATCATCGGTGGTGTTAGCTTCACATGCTTCTGCAGCTGAGCTTGCAGAATAGAGAAAAATGAGCTCA
TAATTTGCTTTGAGAGCTACAGGAAATGGTTGTTTCTCCTATACTTTGTCCTTAACATCTTTCTTGATCCTAAAT
ATATATCTCGTAACAAG

FIGURE 531

MRIIALLAAILLVALQVRAGPLQARGDEAPGQEQRGPEDQDISISFAWDKSSALQVSGSTRGMVCSCRLVFCRRT
ELRVGNCLIGGVSFTYCCTRVD

FIGURE 532

CAGTCTCA**ATG**GGGGCACTGGGGCTGGAGGGCAGGGGTGGGAGGCTCCAGGGGAGGGGTTCCCTCCTGCTAGCTG
TGGCAGGAGCCACTTCTCTGGTGACCTTGTTGCTGGCGGTGCCTATCACTGTCCTGGCTGTGCTGGCCTTAGTGC
CCCAGGATCAGGGAGGACTGGTAACGGAGACGGCCGACCCCGGGGCACAGGCCCAGCAAGGACTGGGGTTTCAGA
AGCTGCCAGAGGAGGAGCCAGAAACAGATCTCAGCCCCGGGCTCCCAGCTGCCCACCTCATAGGCGCTCCGCTGA
AGGGGCAGGGGCTAGGCTGGGAGACGACGAAGGAACAGGCGTTTCTGACGAGCGGGACGCAGTTCTCGGACGCCG
AGGGGCTGGCGCTCCCGCAGGACGGCCTCTATTACCTCTACTGTCTCGTCGGCTACCGGGGCCGGGCGCCCCCTG
GCGGCGGGGACCCCCAGGGCCGCTCGGTCACGCTGCGCAGCTCTCTGTACCGGGCGGGGGGCGCCTACGGGCCGG
GCACTCCCGAGCTGCTGCTCGAGGGCGCCGAGACGGTGACTCCAGTGCTGGACCCGGCCAGGAGACAAGGGTACG
GGCCTCTCTGGTACACGAGCGTGGGGTTCGGCGGCCTGGTGCAGCTCCGGAGGGGCGAGAGGGTGTACGTCAACA
TCAGTCACCCCGATATGGTGGACTTCGCGAGAGGGAAGACCTTCTTTGGGGCCGTGATGGTGGGGTGAGGGAATA
TGAGTGCGTGGTGCGAGTGCGTGAATATTGGGGGCCCGGACGCCCAGGACCCCATGGCAGTGGGAAAAATGTAGG
AGACTGTTTGGAAATTGATTTTGAACCTGATGAAAATAAAGAATGGAAAGCTTCAGTGCTGCCGATAAA

FIGURE 533

MGALGLEGRGGRLQGRGSLLLAVAGATSLVTLLLAVPITVLAVLALVPQDQGGLGFRSCQRRSQKQISAPGSQLP
TS

FIGURE 534

CCCAGAGCAGCGCTCGCCACCTCCCCCCGGCCTGGGCAGCGCTCGCCCGGGGAGTCCAGCGGTGTCCTGTGGAGC
TGCCGCC**ATG**GCCCCGCGGCGGGCGCGCGGCTGCCGGACCCTCGGTCTCCCGGCGCTGCTACTGCTGCTGCTGCT
CCGGCCGCCGGCGACGCGGGGCATCACGTGCCCTCCCCCCATGTCCGTGGAACACGCAGACATCTGGGTCAAGAG
CTACAGCTTGTACTCCAGGGAGCGGTACATTTGTAACTCTGGTTTCAAGCGTAAAGCCGGCACGTCCAGCCTGAC
GGAGTGCGTGTTGAACAAGGCCACGAATGTCGCCCACTGGACAACCCCCAGTCTCAAATGCATTAGAGACCCTGC
CCTGGTTCACCAAAGGCCAGCGCCACCCTCCACAGTAACGACGGCAGGGGTGACCCCACAGCCAGAGAGCCTCTC
CCCTTCTGGAAAAGAGCCCGCAGCTTCATCTCCCAGCTCAAACAACACAGCGGCCACAACAGCAGCTATTGTCCC
GGGCTCCCAGCTGATGCCTTCAAAATCACCTTCCACAGGAACCACAGAGATAAGCAGTCATGAGTCCTCCCACGG
CACCCCCTCTCAGACAACAGCCAAGAACTGGGAACTCACAGCATCCGCCTCCCACCAGCCGCCAGGTGTGTATCC
ACAGGGCCACAGCGACACCACTGTGGCTATCTCCACGTCCACTGTCCTGCTGTGTGGGCTGAGCGCTGTGTCTCT
CCTGGCATGCTACCTCAAGTCAAGGCAAACTCCCCCGCTGGCCAGCGTTGAAATGGAAGCCATGGAGGCTCTGCC
GGTGACTTGGGGGACCAGCAGCAGAGATGAAGACTTGGAAAACTGCTCTCACCACCTA**TGA**AACTCGGGGAAACC
AGCCCAGCTAAGTCCGGAGTGAAGGAGCCTCTCTGCTTTAGCTAAAGACGACTGAGAAGAGGTGCAAGGAAGCGG
GCTCCAGGAGCAAGCTCACCAGGCCTCTCAGAAGTCCCAGCAGGATCTCACGGACTGCCGGGTCGGCGCCTCCTG
CGCGAGGGAGCAGGTTCTCCGCATTCCCATGGGCACCACCTGCCTGCCTGTCGTGCCTTGGACCCAGGGCCCAGC
TTCCCAGGAGAGACCAAAGGCTTCTGAGCAGGATTTTTATTTCATTACAGTGTGAGCTGCCTGGAATACATGTGG
TAATGAAATAAAAACCCTGCCCCGAATCTTCCGTCCCTCATCCTAACTTGCAGTTCACAGAGAAAAGTGACATAC
CCAAAGCTCTCTGTCAATTACAAGGCTTCTCCTGGCGTGGGAGACGTCTACAGGGAAGACACCAGCGTTTGGGCT
TCTAACCACCCTGTCTCCAGCTGCTCTGCACACATGGACAGGGACCTGGGAAAGGTGGGAGAGATGCTGAGCCCA
GCGAATCCTCTCCATTGAAGGATTCAGGAAGAAGAAAACTCAACTCAGTGCCATTTTACGAATATATGCGTTTAT
ATTTATACTTCCTTGTCTATTATATCTATACATTATATATTATTTGTATTTTGACATTGTACCTTGTATAAACAA
AATAAAACATCTATTTTCAATATTTTTAAAATGCA

FIGURE 535

MAPRRARGCRTLGLPALLLLLLLRPPATRGITCPPPMSVEHADIWVKSYSLYSRERYICNSGFKRKAGTSSLTEC
VLNKATNVAHWTTPSLKCIRDPALVHQRPAPPSTVTTAGVTPQPESLSPSGKEPAASSPSSNNTAATTAAIVPGS
QLMPSKSPSTGTTEISSHESSHGTPSQTTAKNWELTASASHQPPGVYPQGHSDTTVAISTSTVLLCGLSAVSLLA
CYLKSRQTPPLASVEMEAMEALPVTWGTSSRDEDLENCSHHL

FIGURE 536

CTGAAGCTTGCATGCCTGCAGGTCGACCCACGCGTCCGCGGACGCGTGGGCGGACGCGTGGGTTTTTCCTTTCTT
CCAGAAGGAGATTTAACCATAGTAGAAAGAATGGAGAACTATTAACTGCCTTCCTTCTGTGGGCTGTGATTTTCA
GAGGGGAATGCTAAGAGGTGATTTTCAATGTTGGGACTCAAAGGTGAAGACACTGAAGGACAGAATTTTTGGCAG
AGGAAAGATCTTCTTCGGTCACCATACTTGAGTTAGCTCTAGGGAAGTGGAGGTTTCCATTTGGAATTCTATAGC
TTCTTCCAGGTCATAGTGTCTGCCCCCCACCTTCCAGTATCTCCTGATATGCAGCATGA**ATG**AAAATGGCAAGTT
TCCTGGCCTTCCTTCTGCTCAACTTTCGTGTCTGCCTCCTTTTGCTTCAGCTGCTCATGCCTCACTCAGCTCAGT
TTTCTGTGCTTGGACCCTCTGGGCCCATCCTGGCCATGGTGGGTGAAGACGCTGATCTGCCCTGTCACCTGTTCC
CGACCATGAGTGCAGAGACCATGGAGCTGAAGTGGGTGAGTTCCAGCCTAAGGCAGGTGGTGAACGTGTATGCAG
ATGGAAAGGAAGTGGAAGACAGGCAGAGTGCACCGTATCGAGGGAGAACTTCGATTCTGCGGGATGGCATCACTG
CAGGGAAGGCTGCTCTCCGAATACACAACGTCACAGCCTCTGACAGTGGAAAGTACTTGTGTTATTCCAAGATG
GTGACTTCTATGAAAAGCCCTGGTGGAGCTGAAGGTTGCAGCACTGGGTTCTGATCTTCACGTTGATGTGAAGG
GTTACAAGGATGGAGGGATCCATCTGGAGTGCAGGTCCACTGGCTGGTACCCCCAACCCCAAATACAGTGGAGCA
ACAACAAGGGAGAGAACATCCCGACTGTGGAAGCACCTGTGGTTGCAGACGGAGTGGGCCTGTATGCAGTAGCAG
CATCTGTGATCATGAGAGGCAGCTCTGGGGAGGGTGTATCCTGTACCATCAGAAGTTCCCTCCTCGGCCTGGAAA
AGACAGCCAGCATTTCCATCGCAGACCCCTTCTTCAGGAGCGCCCAGAGGTGGATCGCCGCCCTGGCACGGACCC
TGCCTGTCTTGCTGCTGCTTCTTGGGGGAGCCGGTTACTTCCTGTGGCAACAGCAGGAGGAAAAAAAGACTCAGT
TCAGAAAGAAAAAGAGAGAGCAAGAGTTGAGAGAAATGGCATGGAGCACAATGAAGCAAGAACAAAGCACAAGAG
TGAAGCTCCTGGAGGAACTCAGATGGAGAAGTATCCAGTATGCATCTCGGGGAGAGAGACATTCAGCCTATAATG
AATGGAAAAAGGCCCTCTTCAAGCCTGCGGATGTGATTCTGGATCCAAAAACAGCAAACCCCATCCTCCTTGTTT
CTGAGGACCAGAGGAGTGTGCAGCGTGCCAAGGAGCCCCAGGATCTGCCAGACAACCCTGAGAGATTTAATTGGC
ATTATTGTGTTCTCGGCTGTGAGAGCTTCATATCAGGGAGACATTACTGGGAGGTGGAGGTAGGGGACAGGAAAG
AGTGGCATATAGGGGTGTGCAGTAAGAATGTGCAGAGAAAAGGCTGGGTCAAAATGACACCTGAGAATGGATTCT
GGACTATGGGGCTGACTGATGGGAATAAGTATCGGACTCTAACTGAGCCCAGAACCAACCTGAAACTTCCTAAGC
CCCCTAAGAAAGTGGGGGTCTTCCTGGACTATGAGACTGGAGATATCTCATTCTACAATGCTGTGGATGGATCGC
ATATTCATACTTTCCTGGACG?CTCCTTCTCTGAGGCTCTATATCCTGTTTTCAGAATTTTGACCTTGGAGCCCA
CGGCCCTGAGTATTTGTCCAGCG**TGA**AAAGAAGAAGAGAGTTCCTCCAATTCTGACCGAGTGCTGATCATTCCCT
AGAGACACCAGTAACCCCGGGCTTAGCTAACGAAAGTGGGGAGCCTCAGGCTGAAGTAACTTTTCTCTGCTTCTC
CCTGCCCAGCTCAGAGCTGAGGGCCTCCCCCTCCACAGCAACCAATCACAACCATAAAGCTACAAGCACGCACTG
AAGCACTTTACTGATACTCATTCAATTATTCATATGACAGTTGTTTGAGTTTGGTACCATCTTATTTTCCCCTTA
TACAGATAAGGAAACTGGGGTGCAGAAAAGTGAATTGACTACAAAGTAGACATGACTAGTTAACAACACAGCTGG
GATCTAAACAGCAATAACTAACATTAATGGAGAACTTAAAATGCTCTGAGTGCTGTGTTATGAGCTTTGGTGGAT
GTCACTCCTTTAATCCTCGCAACACCCTGTCGGGTAGTCTCATTTAGCAAGTATGGAAGTTGAGGCAGGGCAACA
TTAAGCAACTTACATAACTCATGCAGTAATTTCTGCAGTTGGGAGATGTTCAGCTTCAGTCCCCGGCCCTATGGC
CGTTCTTTTCCACCCTGTTTCTTCCCCCATAGGAAGAACCCACCTGTAGCCCTGAGGTTCTTTTCCCAGGATGGC
TCCAGGATAAGGATCACTGTAGGTGGTTGTGGAGTTGACACCCCTGTTGACTCCTTCCCAGCTGATTGTCAGAGC
CTTAGACCCAGCACGCCTTGGATTAGCTTTGCAGAGTGTCTTGGTTGAGAGAATAACCTCACCGTACCCACATGA
CACGTGATTTGGAAAGAGACTAGAGGCCACACTTGATAAATCATGGGGAACAGATGTGTTCCACCCAACAAATGT
GATAAGTGATCATGCAGCCAGAGCCAGCCTTCCTTCAATCAAGGTTTCCAGGCAGAGCAAATACCCTAGAGATTT
TCTGTGATATAGGAAATTTGGATGAAGGGAGCTAGAAGAAATACAGGGATTTTTTTTTTTTTAAGATGGAGTC
TTACTCTGTTGCTAGGCTGGAGTGCAGTGGTGCGATCTCAGCTCCCTGCAACCTCCACCTCCTGGGTTCAAACAA
TTCTCCTGCCTCAGCCTCCCGAGTACTGGGAATATAGGTGCACGCCACCACACCCAACAAATTTTTGTACTTTTA
GTACAGATGAGGGTTCACTATGTTGGCCAGGATGGTCTCGATCTCTTGACCTCATGATCCACCCACCTCGGTCTC
CCAAAGTGCTGGGATTACAGGCTTGAGCCACCGGGTGACCGGCTTACAGGGATATTTTAATCCCGTTATGGACT
CTGTCTCCAGGAGAGGGGTCTATCCACCCCTGCTCATTGGTGGATGTTAAACCAATATTCCTTTCAACTGCTGCC
TGCTAGGGAAAAACTACTCCTCATTATCATCATTATTATTGCTCTCCACTGTATCCCCTCTACCTGGCATGTGCT
TGTCAAGTTCTAGTTGTTCAATAAATTTGTTAATAATGCTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AA

FIGURE 537

MKMASFLAFLLLNFRVCLLLLQLLMPHSAQFSVLGPSGPILAMVGEDADLPCHLFPTMSAETMELKWVSSSLRQV
VNVYADGKEVEDRQSAPYRGRTSILRDGITAGKAALRIHNVTASDSGKYLCYFQDGDFYEKALVELKVAALGSDL
HVDVKGYKDGGIHLECRSTGWYPQPQIQWSNNKGENIPTVEAPVVADGVGLYAVAASVIMRGSSGEGVSCTIRSS
LLGLEKTASISIADPFFRSAQRWIAALARTLPVLLLLLGGAGYFLWQQQEEKKTQFRKKKREQELREMAWSTMKQ
EQSTRVKLLEELRWRSIQYASRGERHSAYNEWKKALFKPADVILDPKTANPILLVSEDQRSVQRAKEPQDLPDNP
ERFNWHYCVLGCESFISGRHYWEVEVGDRKEWHIGVCSKNVQRKGWVKMTPENGFWTMGLTDGNKYRTLTEPRTN
LKLPKPPKKVGVFLDYETGDISFYNAVDGSHIHTFLDVSFSEALYPVFRILTLEPTALSICPA

FIGURE 538

GGCACGAGGGGAGTGGAAAGTTCTCCGGCAGCCCTGAGATCTCAAGAGTGACATTTGTGAGACCAGCTAATTTGA
TTAAAATTCTCTTGGAATCAGCTTTGCTAGTATCATACCTGTGCCAGATTTCATC**ATG**GGAAACAGCTGTTACAA
CATAGTAGCCACTCTGTTGCTGGTCCTCAACTTTGAGAGGACAAGATCATTGCAGGATCCTTGTAGTAACTGCCC
AGCTGGTACATTCTGTGATAATAACAGGAATCAGATTTGCAGTCCCTGTCCTCCAAATAGTTTCTCCAGCGCAGG
TGGACAAAGGACCTGTGACATATGCAGGCAGTGTAAAGGTGTTTTCAGGACCAGGAAGGAGTGTTCCTCCACCAG
CAATGCAGAGTGTGACTGCACTCCAGGGTTTCACTGCCTGGGGGCAGGATGCAGCATGTGTGAACAGGATTGTAA
ACAAGGTCAAGAACTGACAAAAAAAGGTTGTAAAGACTGTTGCTTTGGGACATTTAACGATCAGAAACGTGGCAT
CTGTCGACCCTGGACAAACTGTTCTTTGGATGGAAAGTCTGTGCTTGTGAATGGGACGAAGGAGAGGGACGTGGT
CTGTGGACCATCTCCAGCCGACCTCTCTCCGGGAGCATCCTCTGTGACCCCGCCTGCCCCTGCGAGAGAGCCAGG
ACACTCTCCGCAGATCATCTCCTTCTTTCTTGCGCTGACGTCGACTGCGTTGCTCTTCCTGCTGTTCTTCCTCAC
GCTCCGTTTCTCTGTTGTTAAACGGGGCAGAAAGAAACTCCTGTATATATTCAAACAACCATTTATGAGACCAGT
ACAAACTACTCAAGAGGAAGATGGCTGTAGCTGCCGATTTCCAGAAGAAGAAGAAGGAGGATGTGAACTG**TGA**AA
TGGAAGTCAATAGGGCTGTTGGGACTTTCTTGAAAAGAAGCAAGGAAATATGAGTCATCCGCTATCACAGCTTTC
AAAAGCAAGAACACCATCCTACATAATACCCAGGATTCCCCCAACACACGTTCTTTTCTAAATGCCAATGAGTTG
GCCTTTAAAAATGCACCACTTTTTTTTTTTTTTTGACAGGGTCTCACTCTGTCACCCAGGCTGGAGTGCAGTGGC
ACCACCATGGCTCTCTGCAGCCTTGACCTCTGGGAGCTCAAGTGATCCTCCTGCCTCAGTCTCCTGAGTAGCTGG
AACTACAAGGAAGGGCCACCACACCTGACTAACTTTTTTGTTTTTTGTTTGGTAAAGATGGCATTTCACCATGTT
GTACAGGCTGGTCTCAAACTCCTAGGTTCACTTTGGCCTCCCAAAGTGCTGGGATTACAGACATGAACTGCCAGG
CCCGGCCAAAATAATGCACCACTTTTAACAGAACAGACAGATGAGGACAGAGCTGGTGATAAAAAAAAAAAAAAA
AAAGCATTTTCTAGATACCACTTAACAGGTTTGAGCTAGTTTTTTTGAAATCCAAAGAAAATTATAGTTTAAATT
CAATTACATAGTCCAGTGGTCCAACTATAATTATAATCAAAATCAATGCAGGTTTGTTTTTGGTGCTAATATGA
CATATGACAATAAGCCACGAGGTGCAGTAAGTACCCGACTAAAGTTTCCGTGGGTTCTGTCATGTAACACGACAT
GCTCCACCGTCAGGGGGGAGTATGAGCAGAGTGCCTGAGTTTAGGGTCAAGGACAAAAAACCTCAGGCCTGGAGG
AAGTTTTGGAAAGAGTTCAAGTGTCTGTATATCCTATGGTCTTCTCCATCCTCACACCTTCTGCCTTTGTCCTGC
TCCCTTTTAAGCCAGGTTACATTCTAAAAATTCTTAACTTTTAACATAATATTTTATACCAAAGCCAATAAATGA
ACTGCATATGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 539

MGNSCYNIVATLLLVLNFERTRSLQDPCSNCPAGTFCDNNRNQICSPCPPNSFSSAGGQRTCDICRQCKGVFRTR
KECSSTSNAECDCTPGFHCLGAGCSMCEQDCKQGQELTKKGCKDCCFGTFNDQKRGICRPWTNCSLDGKSVLVNG
TKERDVVCGPSPADLSPGASSVTPPAPAREPGHSPQIISFFLALTSTALLFLLFFLTLRFSVVKRGRKKLLYIFK
QPFMRPVQTTQEEDGCSCRFPEEEEGGCEL

FIGURE 540A

ACGGCTGCGAGAAGACGACAGAAGGGGAGAGGTGAATATTATTGA**ATG**AAAATGGCTGACAGAAGTGGGAAGATT
ATTCCAGGACAAGTGTATATTGAGGTGGAATATGATTATGAATATGAAGCAAAGGACAGAAAGATTGTGATAAAA
CAAGGGGAGAGGTACATCTTGGTGAAAAAGACCAATGATGACTGGTGGCAAGTCAAGCCAGATGAAAACTCCAAA
GCGTTTTATGTGCCAGCCCAGTATGTGAGGGAGGTCACGCGCAAAGCTCTCATGCCACCTGTTAAGCAGGTAGCT
GGTCTGCCAAATAACTCCACGAAAATAATGCAGAGTTTGCATCTTCAGAGATCAACAGAAAATGTGAACAAATTG
CCTGAGCTTTCAAGTTTCGGAAAGCCATCGTCATCTGTTCAAGGAACAGGTCTTATTCGTGATGCCAATCAGAAT
TTTGGACCCAGTTATAATCAAGGTCAGACTGTCAACCTAAGCCTGGACCTGACCCATAATAACGGAAAGTTTAAC
AATGACTCACATTCTCCTAAAGTTTCCAGCCAGAATAGGACACGCTCATTGGTCATTTTCCCGGTCCAGAGTTC
TTGGATGTAGAGAAAACTAGCTTCTCCCAGGAACAATCTTGTGATTCCGCAGGAGAAGGCTCTGAAAGAATACAT
CAAGATTCTGAATCTGGTGATGAACTTAGCAGCAGCTCCACTGAACAGATAAGGGCAACCACACCTCCAAATCAA
GGAAGGCCAGATTCTCCTGTCTATGCTAACCTTCAAGAACTGAAAATATCCCAGTCTGCTCTTCCCCCACTTCCT
GGGAGCCCGGCAATTCAGATTAATGGAGAATGGGAAACTCATAAAGACAGCTCAGGGCGTTGCTATTACTATAAC
AGAGGGACACAGGAAAGAACTTGGAAACCTCCTCGTTGGACCCGGGATGCAAGCATCAGCAAAGGAGATTCCAA
AATCCAGGGGATCAAGAGTGGCTCAAGCATGTTGATGATCAAGGTAGACAATATTACTACAGTGCAGACGGATCT
CGGTCAGAATGGGAATTGCCAAAGTATAATGCTTCATCCCAGCAGCAAAGAGAAATAATTAAAAGTAGGAGCCTG
GACAGGCGGCTGCAAGAACCAATAGTATTAACAAAGTGGAGACATAGCACCATTGTATTGGACACTAATGATAAG
GAATCTCCAACTGCCTCAAAACCCTGCTTTCCTGAAAATGAGTCTTCTCCCTCCTCACCAAAGCACCAAGATACA
GATCAAGAGAAATATGGATTATTAAATGTAACAAAAATTGCTGAAAATGGGAAAAAGGTTCGAAAGAACTGGTTG
TCTTCTTGGGCGGTGTTGCAGGGTTCATCTTTACTTTTTACCAAAACTCAAGGAAGTAGCACAAGTTGGTTTGGC
AGTAATCAGTCCAAACCAGAGTTCACAGTGGACCTCAAGGGGGCAACAATTGAGATGGCTTCAAAGGATAAATCC
AGCAAAAAGAATGTATTTGAGCTGAAAACTCGTCAAGGAACAGAACTGCTAATTCAGTCTGACAATGACACTGTT
ATTAATGATTGGTTTAAAGTTCTTAGTAGTACAATCAATAATCAGGCAGTAGAAACTGATGAAGGAATTGAAGAG
GAGATACCGGATTCACCAGGAATAGAAAAGCATGATAAAGAAAAGGAACAAAAGGATCCCAAAAAGCTTCGTTCC
TTTAAAGTATCTAGCATAGATTCTTCAGAACAGAAAAAAACCAAGAAAAACTTAAAGAAGTTTCTTACACGACGC
CCCACTTTGCAAGCTGTTCGTGAAAAAGGTTATATTAAAGATCAGGTATTTGGATCCAATCTCGCTAATCTGTGT
CAGAGAGAGAATGGCACAGTACCAAAGTTTGTGAAGTTATGTATTGAACATGTTGAAGAACATGGTTTGGATATT
GATGGGATATACAGAGTAAGTGGCAACCTCGCAGTGATCCAGAAACTAAGGTTTGCAGTCAATCATGATGAGAAA
TTGGACTTGAATGACAGTAAATGGGAAGATATTCATGTCATTACTGGAGCCCTCAAAATGTTTTTTCGAGAATTA
CCAGAACCTCTTTTTACATTTAATCATTTTAATGATTTTGTTAATGCAATTAAGCAAGAACCAAGACCGCGAGTC
GCTGCTGTTAAGGACCTAATCAGACAGTTGCCAAAGCCAAACCAAGACACAATGCAGATTCTTTTCCGACATCTC
AGAAGAGTTATAGAAAATGGAGAGAAAAATCGAATGACCTATCAGAGTATAGCAATTGTTTTTGGTCCCACTCTA
TTAAAACCAGAAAAAGAGACTGGTAATATAGCAGTTCATACTGTGTACCAGAATCAGATTGTAGAATTAATTCTT
CTGGAACTGAGTTCCATCTTCGGACGT**TGA**TTCTTACTGAAGACAACCTGTGGAATAGAAGCTGGATTCCATCAG
ATTTCAAATGTTTATACACAATGTATTTTATTTTTTGGACCAAGCAGTGACTCTTTGATTTTGCACTTTTTTTTT
GAGGGATCAGAAGGGAAGGGGAGAGTCGAGATGTGTGTTAGGCCCTCATATTTGCTGCTTTGTTGCAAGTTGATA
TAACTGCGTGTAATTATGAATTCATTTTATCCTGAATGTTTGCATTTCATACTCTGAATTTCAGTAAAAATCAAA
ACTTAAAATTCTAACCAGTCATATACACTGGATAATTTGGTAAGAAACTGTATTTTTTTCCCTGAAATTGGAT
AATGTACTTTCTTCTCAAGATTCATGACTTGATAGAACAATACTTTCAGTTATGTTGCAAAGGCTCTTGGGCATT
TTAAACAAAATGAAGTATATCCATTTTGAAACCTGTGTATTTCTTTTCGGGGTTTCTGCATGCAGTGGCAGTCT
TAAGTGCCAAAATTCATTATAACCCCAAAATAACCCCTTGATGAAGGCTTGCTGTCTTTACTGTGTTACACAGC
ATCCTTACTGGATATCTTAGTTGCTTGTTTGGGCAGCACACTAATATTACTTAAAACACTGTGATATACTGGAGT
TTTAGTTAGCGGAAGTCAGTTCAGGGCATTTTAGGGCTGTCTTGCTATACTGAATTGTAGCTAACAATCCTAATT
ATATCTAGTACCATACTGAGTTATTGGTATGACCCTGTGGAAACACACATTATTTTATGTAAATATAGGCTAAAG
ACTTAATGTCCTTTAGCTTGTGTATATAATTGTGTTGTATAGTCTCAGAGTACATTCTAACCCTACATTTCTAAT
CATTGTTATTGGTAATCTTTTCTGTGAATATTAGGTTTCCTCCAGAAATAGTCCGTTATTTGGGAAAGTTAACTG
TGTGCACTTTTAGATATTAACTACATTTACAGGCAAATCACTGTAATGAGAATGGTACTGGAAAAATACTGAATA
GACTTGCTAAATGGCACATGCACTACAAGAGGAACCTTTTGGGTTATTTAATATGTACAGAAAACATTAGAAAAA
ATTTATTACAGAATTCTAATTCCAGTATGAATAGTGGAAACCCACCTGTAAATTAGATGGATGTTGGATGGAAAA

FIGURE 540B

TGACATTGCTAAATTTGAGAATTTCTTTTTACCTACTAATGTAGATTGCTTTGTATAATAAAACACAGGGTTTGG
AAGGTTTTGTTACAGGGAGCATGGTCTGTTGAAGATTTTTAAAATGTATTTTTCTAGATTAACTTCTGTACATGA
AATGTCTAATAAAACTCTAAGAGGCTTAGAGATTTTTCCATTGGAAATGTGCATTTTGGTTTCTAATTTTTTTGT
TTTTTCATTTACTGGCATACTGTTATACCTCATTTTTAAAAATCAACTGAATCCAATATTTCCTGTGGCAAATAA
CACTTTCCTCATTTCATACCTTTTCTCCTCTCTTCCATGCCAACATTTCTCCACCCACAACGTACACTTTTTATT
TCTCCATCAATATTTGAAAGCGAGTGATTTGTGACCAGGATTTTTTTTTCTTAGGGTTGCATTTATAATTTACAG
ATTGCCTTCCTTGGGAACAAGTATTTTTTTGTATGATCTGTCTAAAAACCTCTCACCTGAATTTTGTGGTAGAAA
GTCTGTATTTGTTGTTGTGAGCGTGTTAAATTGATAACAAACCAAACTACTTGATAGCTAAAGCAGATTGTTTCG
GGTGGGGAGAAAAAGCCCTAAATCAGAATGTTTATATTTGCCTAAAGTTGTCCTTAATAATACAATATGCTTTAG
ATCTTGCTTATTTAGTGATTGTATACCAGGAAAACAATTAGACTCAAATCAGTGATGTTCTTGTTCTTGGTGTTC
ATGAACATATATCAAAGATTAAAATTGTCCTGTGTTTCTTGTTTCAAGGTACGTGTGTGTGTGTGTGTGTGTGTG
TGTGTGTGTGTGTGTGAAGTCTTAAATGTTTATTAGTCTACAGCTAATCAGTTATTGTAATATTGTATGTA
CAGTGAGATTAATGTCTTGCGTTTTCATCCTTTGTGAATTAAAAATTCTCACTTGTTTTGTAATAACAAAGCTAG
TAATATTTTCCTGTCTTGACAGCTTGGTTTTATAGTAGAAAATATATTAAAAGCTGAAATAAATTATCAGTGGAA
TTTTAAAAAAGAAAAAAAAAAAAAAAAA

FIGURE 541

MKMADRSGKIIPGQVYIEVEYDYEYEAKDRKIVIKQGERYILVKKTNDDWWQVKPDENSKAFYVPAQYVREVTRK
ALMPPVKQVAGLPNNSTKIMQSLHLQRSTENVNKLPELSSFGKPSSSVQGTGLIRDANQNFGPSYNQGQTVNLSL
DLTHNNGKFNNDSHSPKVSSQNRTRSFGHFPGPEFLDVEKTSFSQEQSCDSAGEGSERIHQDSESGDELSSSSTE
QIRATTPPNQGRPDSPVYANLQELKISQSALPPLPGSPAIQINGEWETHKDSSGRCYYYNRGTQERTWKPPRWTR
DASISKGDFQNPGDQEWLKHVDDQGRQYYYSADGSRSEWELPKYNASSQQQREIIKSRSLDRRLQEPIVLTKWRH
STIVLDTNDKESPTASKPCFPENESSPSSPKHQDTDQEKYGLLNVTKIAENGKKVRKNWLSSWAVLQGSSLLFTK
TQGSSTSWFGSNQSKPEFTVDLKGATIEMASKDKSSKKNVFELKTRQGTELLIQSDNDTVINDWFKVLSSTINNQ
AVETDEGIEEEIPDSPGIEKHDKEKEQKDPKKLRSFKVSSIDSSEQKKTKKNLKKFLTRRPTLQAVREKGYIKDQ
VFGSNLANLCQRENGTVPKFVKLCIEHVEEHGLDIDGIYRVSGNLAVIQKLRFAVNHDEKLDLNDSKWEDIHVIT
GALKMFFRELPEPLFTFNHFNDFVNAIKQEPRPRVAAVKDLIRQLPKPNQDTMQILFRHLRRVIENGEKNRMTYQ
SIAIVFGPTLLKPEKETGNIAVHTVYQNQIVELILLELSSIFGR

FIGURE 542

ATGACCATGGAAACAGTTGAATCCCAGCATGATGGAAGTATAACAGCTTCTTTGACAGAGAGCAAGTCTGCTCAT
GTGCAGACTCAGACTGGGCAAATTTCAATCCCTGCTTTAGCTCAGTGCAGTGAGCTGAGATCAGGCACCAGAAGA
GGCTCCCCAGCTGTAACTCTAGTGCAGTTACCTTCGGGCCAAACTATACATGTCCAGGGAGTAATTCAGACACCA
CAGCCATGGGTTATTCAGTCATCAGAAATACACACCGTTCAGGTAGCAGCAATTGCAGAGACAGATGAATCTGCA
GAATCAGAAGGTGTAATTGATTCTCATAAACGTAGAGAAATCCTTTCACGAAGACCCTCTTATAGGAAAATACTG
AATGAACTGTCCTCTGATGTGCCTGGTGTTCCCAAGATTGAAGAAGAGAGATCAGAGGAAGAAGGAACACCACCT
AGTATTGCTACCATGGCAGTACCAACTAGCATATATCAGACTAGCACGGGGCAATACATTGCTATAGCCCAAGGT
GGAACAATCCAGATTTCTAACCCAGGATCTGATGGTGTTCAGGGACTGCAGGCATTAACAATGACAAATTCAGGA
GCTCCTCCACCAGGTGCTACAATTGTACAGTACGCAGCACAATCAGCTGATGGCACACAGCAGTTCTTTGTCCCA
GGCAGCCAGGTTGTTGTTCAAGCTGCCACTGGTGACATGCCAACTTACCAGATCCGAGCTCCTACTGCTGCTTTG
CCACAGGGAGTGGTGATGGCTGCATCGCCCGGAAGTTTGCACAGTCCCCAGCAGCTGGCAGAAGAAGCAACACGC
AAACGAGAGCTGAGGCTAATGAAAAACAGAGAAGCTGCCCGGGAGTGTCGCAGGAAGAAGAAAGAATATGTCAAA
TGTCTTGAAAATCGTGTGGCTGTGCTTGAAAACCAAAACAAGACTCTCATTGAGGAACTCAAGGCCCTCAAAGAT
CTTTATTGCCATAAAGTAGAG**TAA**CTGTCTTTGACTTGGACCTTGTTACTCTAATCAAGGCAGGAGATGCAGCA
GTCCTACTTATTGCCATGTGGACTTGTGGGAAGGACACGTGTGACCCTTAAGAATCCAGTTTGGATTAGTGTTTG
AAATTGAATTGGGAATGTTGTTCCAGGATGTGGAATGCAGCGTGATCACACTTACCGAGCTTACTTTGATCTGTT
TGTCAATAGCATGCAAAAAATGCTTTGTTTGCCCTTTGCTTCTGCTTTTTTTCAGGGAAGCTGCCAAAGAATGTC
GACGTCGAAAGAAAGAATATGTAAAATGCCTGGAGAGCCGAGTTGCAGTGCTGGAAGTCCAGAACAAGAAGCTTA
TAGAGGAACTTGAAACCTTGAAAGACATTTGTTCTCCCAAAACTGATTACTAGAAATATTTAACTATGAACTGAT
TACAGA

FIGURE 543

MTMETVESQHDGSITASLTESKSAHVQTQTGQISIPALAQCSELRSGTRRGSPAVTLVQLPSGQTIHVQGVIQTP
QPWVIQSSEIHTVQVAAIAETDESAESEGVIDSHKRREILSRRPSYRKILNELSSDVPGVPKIEEERSEEEGTPP
SIATMAVPTSIYQTSTGQYIAIAQGGTIQISNPGSDGVQGLQALTMTNSGAPPPGATIVQYAAQSADGTQQFFVP
GSQVVVQAATGDMPTYQIRAPTAALPQGVVMAASPGSLHSPQQLAEEATRKRELRLMKNREAARECRRKKKEYVK
CLENRVAVLENQNKTLIEELKALKDLYCHKVE

FIGURE 544

GAATTCGGCCAAAGAGGCCTATGCTTCTCTGAAGACTTGCAGCAAGGCTTGCTGAGGCTCACAGAAGATAGCCCC
AGTGTTTTGGAGTGGTTTTGAATGTGATTCTGAGATCAGACTGACTGAGCTGGAATCCTGGCTTTATATCTTACC
AGCTACACAACCTTGGAGTCTTAGAAATTTTTTCTTTTCAATAAGCAGTCATCCTTACTTTCCCTCAAG**ATG**ACA
AACAGTTCGTTCTTCTGCCCAGTTTATAAAGATCTGGAGCCATTCACGTATTTTTTTTATTTAGTTTTCCTTGTT
GGAATTATTGGAAGTTGTTTTGCAACCTGGGCTTTTATACAGAAGAATACGAATCACAGGTGTGTGAGCATCTAC
TTAATTAATTTGCTTACAGCCGATTTCCTGCTTACTCTGGCATTACCAGTGAAAATTGTTGTTGACTTGGGTGTG
GCACCTTGGAAGCTGAAGATATTCCACTGCCAAGTAACAGCCTGCCTCATCTATATCAATATGTATTTATCAATT
ATCTTCTTAGCATTTGTCAGCATTGACCGCTGTCTTCAGCTGACACACAGCTGCAAGATCTACCGAATACAAGAA
CCCGGATTTGCCAAAATGATATCAACCGTTGTGTGGCTAATGGTCCTTCTTATAATGGTGCCAAATATGATGATT
CCCATCAAAGACATCAAGGAAAAGTCAAATGTGGGTTGTATGGAGTTTAAAAAGGAATTTGGAAGAAATTGGCAT
TTGCTGACAAATTTCATATGTGTAGCAATATTTTTAAATTTCTCAGCCATCATTTTAATATCCAATTGCCTTGTA
ATTCGACAGCTCTACAGAAACAAAGATAATGAAAATTACCCAAATGTGAAAAAGGCTCTCATCAACATACTTTTA
GTGACCACGGGCTACATCATATGCTTTGTTCCTTACCACATTGTCCGAATCCCGTATACCCTCAGCCAGACAGAA
GTCATAACTGATTGCTCAACCAGGATTTCACTCTTCAAAGCCAAAGAGGCTACACTGCTCCTGGCTGTGTCGAAC
CTGTGCTTTGATCCTATCCTGTACTATCACCTCTCAAAAGCATTCCGCTCAAAGGTCACTGAGACTTTTGCCTCA
CCTAAAGAGACCAAGGCTCAGAAAGAAAAATTAAGATGTGAAAATAATGCA**TAA**AAGACAGGATTTTTTGTGCTA
CCAATTCTGGCCTTACTGGACCATAAAGTTAATTATAGCTTTGAAAGATAAAAAAAAAAAAAAAAGCGGCCGC

FIGURE 545

MTNSSFFCPVYKDLEPFTYFFYLVFLVGIIGSCFATWAFIQKNTNHRCVSIYLINLLTADFLLTLALPVKIVVDL
GVAPWKLKIFHCQVTACLIYINMYLSIIFLAFVSIDRCLQLTHSCKIYRIQEPGFAKMISTVVWLMVLLIMVPNM
MIPIKDIKEKSNVGCMEFKKEFGRNWHLLTNFICVAIFLNFSAIILISNCLVIRQLYRNKDNENYPNVKKALINI
LLVTTGYIICFVPYHIVRIPYTLSQTEVITDCSTRISLFKAKEATLLLAVSNLCFDPILYYHLSKAFRSKVTETF
ASPKETKAQKEKLRCENNA

FIGURE 546

GAATTCGGCACGAGTCAGGGAAGCAGCCCCGGCGGCCAGCAGGGAGCTCAGGACAGAGCAGGCTCCCTGGGAAGC
CTCCGGGTGATAGGGGTGTTCCAGCTGCGGCGCTCTGGGGGTTCAGAGGGGGATCTTGAATGAACAAATGAATGA
ACTGCTTTCTGGGCAAACAGCCACAGCCAGAGGAGCCTGTGATTGGCAGAAAGAAGCCAGGGTGTGCAAGTCTCC
CCAACAGCCTCGAGTGGCCTGCAGTCACAGGGAACCCTCAGGAAGACCTTCCGGGCAGAGACCAGAGGGAAGCCC
ATCTCTCCAGCAGAACTGCTTGGATTTTTCTACCAGGAGGCTCAGGGCTCTGCAACAATGATAGCAGAAGCTGAT
GGCATCTAGAGATCTAGGCTGGGACTAGCACAGCATCACTTCTACCACTTTCTGTTGGTCACAGCAACTCACCAT
GCCAGTGCAGATTCAAGGGGAGGAGAAATAGAGTCCACTTCTTGATGGGAGGCGTGACATAGA**ATG**GAGGATGAA
GATTACAACACTTCCATCAGTTACGGTGATGAATACCCTGATTATTTAGACTCCATTGTGGTTTTGGAGGACTTA
TCCCCCTTGGAAGCCAGGGTGACCAGGATCTTCCTGGTGGTGGTCTACAGCATCGTCTGCTTCCTCGGGATTCTG
GGCAATGGTCTGGTGATCATCATTGCCACCTTCAAGATGAAGAAGACAGTGAACATGGTCTGGTTCCTCAACCTG
GCAGTGGCAGATTTCCTGTTCAACGTCTTCCTCCCAATCCATATCACCTATGCCGCCATGGACTACCACTGGGTT
TTCGGGACAGCCATGTGCAAGATCAGCAACTTCCTTCTCATCCACAACATGTTCACCAGCGTCTTCCTGCTGACC
ATCATCAGCTCTGACCGCTGCATCTCTGTGCTCCTCCCTGTCTGGTCCCAGAACCACCGCAGCGTTCGCCTGGCT
TACATGGCCTGCATGGTCATCTGGGTCCTGGCTTTCTTCTTGAGTTCCCCATCTCTCGTCTTCCGGGACACAGCC
AACCTGCATGGGAAAATATCCTGCTTCAACAACTTCAGCCTGTCCACACCTGGGTCTTCCTCGTGGCCCACTCAC
TCCCAAATGGACCCTGTGGGGTATAGCCGGCACATGGTGGTGACTGTCACCCGCTTCCTCTGTGGCTTCCTGGTC
CCAGTCCTCATCATCACAGCTTGCTACCTCACCATCGTGTGCAAACTGCAGCGCAACCGCCTGGCCAAGACCAAG
AAGCCCTTCAAGATTATTGTGACCATCATCATTACCTTCTTCCTCTGCTGGTGCCCCTACCACACACTCAACCTC
CTAGAGCTCCACCACACTGCCATGCCTGGCTCTGTCTTCAGCCTGGGTTTGCCCCTGGCCACTGCCCTTGCCATT
GCCAACAGCTGCATGAACCCCATTCTGTATGTTTTCATGGGTCAGGACTTCAAGAAGTTCAAGGTGGCCCTCTTC
TCTCGCCTGGTCAATGCTCTAAGTGAAGATACAGGCCACTCTTCCTACCCCAGCCATAGAAGCTTTACCAAGATG
TCATCAATGAATGAGAGGACTTCTATGAATGAGAGGGAGACCGGCATGCTT**TGA**TCCTCACTGTGGAACCCCTCA
ATGGACTCTCTCAACCCAGGGACACCCAAGGATATGTCTTCTGAAGATCAAGGCAAGAACCTCTTTAGCATCCAC
CAATTTTCACTGCATTTTGCATGGGATGAACAGTGTTTATGCTGGGAATCTAGGGCCTGGAACCCCTTTCTTCT
AGTGGACAGAACATGCTGTGTTCCATACAGCCTTGGACTAGCAATTTATGCTTCTTGGGAGGCCAGCCTTGACTG
ACTCAAAGCAAAAAAGGAAGAATTC

FIGURE 547

MEDEDYNTSISYGDEYPDYLDSIVVLEDLSPLEARVTRIFLVVVYSIVCFLGILGNGLVIIIATFKMKKTVNMVW
FLNLAVADFLFNVFLPIHITYAAMDYHWVFGTAMCKISNFLLIHNMFTSVFLLTIISSDRCISVLLPVWSQNHRS
VRLAYMACMVIWVLAFFLSSPSLVFRDTANLHGKISCFNNFSLSTPGSSSWPTHSQMDPVGYSRHMVVTVTRFLC
GFLVPVLIITACYLTIVCKLQRNRLAKTKKPFKIIVTIIITFFLCWCPYHTLNLLELHHTAMPGSVFSLGLPLAT
ALAIANSCMNPILYVFMGQDFKKFKVALFSRLVNALSEDTGHSSYPSHRSFTKMSSMNERTSMNERETGML

FIGURE 548

TGAAGGCTGGTTGTTCAGACTGAGCTTCCTGCCTGCCTGTACCCCGCCAACAGCTTCAGAAGAAGGTGACTGGTG
GCTGCCTGAGGAATACCAGTGGGCAAGAGAATTAGCATTTCTGGAGCATCTGCTGTCTGAGCAGCCCCTGGGTGC
GTCCACTTTCTGGGCACGTGAGGTTGGGCCTTGGCCGCCTGAGCCCTTGAGTTGGTCACTTGAACCTTGGGAATA
TTGAGATTATATTCTCCTGCCTTTTAAAAAG**ATG**GACTTCAGCAGAAATCTTTATGATATTGGGGAACAACTGGA
CAGTGAAGATCTGGCCTCCCTCAAGTTCCTGAGCCTGGACTACATTCCGCAAAGGAAGCAAGAACCCATCAAGGA
TGCCTTGATGTTATTCCAGAGACTCCAGGAAAAGAGAATGTTGGAGGAAAGCAATCTGTCCTTCCTGAAGGAGCT
GCTCTTCCGAATTAATAGACTGGATTTGCTGATTACCTACCTAAACACTAGAAAGGAGGAGATGGAAAGGGAACT
TCAGACACCAGGCAGGGCTCAAATTTCTGCCTACAGGTTCCACTTCTGCCGCATGAGCTGGGCTGAAGCAAACAG
CCAGTGCCAGACACAGTCTGTACCTTTCTGGCGGAGGGTCGATCATCTATTAATAAGGGTCATGCTCTATCAGAT
TTCAGAAGAAGTGAGCAGATCAGAATTGAGGTCTTTTAAGTTTCTTTTGCAAGAGGAAATCTCCAAATGCAAACT
GGATGATGACATGAACCTGCTGGATATTTTCATAGAGATGGAGAAGAGGGTCATCCTGGGAGAAGGAAAGTTGGA
CATCCTGAAAAGAGTCTGTGCCCAAATCAACAAGAGCCTGCTGAAGATAATCAACGACTATGAAGAATTCAGCAA
AGGGGAGGAGTTGTGTGGGGTAATGACAATCTCGGACTCTCCAAGAGAACAGGATAGTGAATCACAGACTTTGGA
CAAAGTTTACCAAATGAAAAGCAAACCTCGGGGATACTGTCTGATCATCAACAATCACAATTTTGCAAAAGCACG
GGAGAAAGTGCCCAAACTTCACAGCATTAGGGACAGGAATGGAACACACTTGGATGCAGGGGCTTTGACCACGAC
CTTTGAAGAGCTTCATTTTGAGATCAAGCCCCACGATGACTGCACAGTAGAGCAAATCTATGAGATTTTGAAAAT
CTACCAACTCATGGACCACAGTAACATGGACTGCTTCATCTGCTGTATCCTCTCCCATGGAGACAAGGGCATCAT
CTATGGCACTGATGGACAGGAGGCCCCCATCTATGAGCTGACATCTCAGTTCACTGGTTTGAAGTGCCCTTCCCT
TGCTGGAAAACCCAAAGTGTTTTTTATTCAGGCTTGTCAGGGGGATAACTACCAGAAAGGTATACCTGTTGAGAC
TGATTCAGAGGAGCAACCCTATTTAGAAATGGATTTATCATCACCTCAAACGAGATATATCCCGGATGAGGCTGA
CTTTCTGCTGGGGATGGCCACTGTGAATAACTGTGTTTCCTACCGAAACCCTGCAGAGGGAACCTGGTACATCCA
GTCACTTTGCCAGAGCCTGAGAGAGCGATGTCCTCGAGGCGATGATATTCTCACCATCCTGACTGAAGTGAACTA
TGAAGTAAGCAACAAGGATGACAAGAAAAACATGGGGAAACAGATGCCTCAGCCTACTTTCACACTAAGAAAAAA
ACTTGTCTTCCTTCTGAT**TGA**TGGTGCTATTTTGTTTGTTTTGTTTTGTTTTGTTTTTTTGAGACAGAATCTCG
CTCTGTCGCCCAGGCTGGAGTGCAGTGGCGTGATCTCGGCTCACCGCAAGCTCCGCCTCCCGGGTTCAGGCCATT
CTCCTGCCTCAGCCTCCCGAGTAGCTGGGACTACAGGGGCCCGCCACCACACCTGGCTAATTTTTTAAAAATATT
TTTAGTAGAGACAGGGTTTCACTGTGTTAGCCAGGGTGGTCTTGATCTCCTGACCTCGTGATCCACCCACCTCGG
CCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGCGCCTGGCCGATGGTACTATTAGATATAACACTATGT
TTATTTACTAATTTTCTAGATTTTCTACTTTATTAATTGTTTGCACTTTTTATAAGAGCTAAAGTTAAATAGG
ATATTAACAACAATAACACTGTCTCCTTTCTCTTACGCTTAAGGCTTTGGGAATGTTTTTAGCTGGTGGCAATAA
ATACCAGACACGTACAAAATCCAGCTATGAATATAGAGGGCTTATGATTCAGATTGTTATCTATCAACTATAAGC
CCACTGTTAATATTCTATTAACTTTAATTCTCTTTCAAAGCTAAATTCCACACTACCACATTAAAAAAATTAGAA
AGTAGCCACGTATGGTGGCTCATGTCTATAATCCCAGCACTTTGGGAGGTTGAGGTGGGAGGATTTGCTTGAACC
CAAGAGGTCCAAGGCTGCAGTGAGCCATGTTCACACCGCTGCACTCAAGCTTGGGTGACAGAGCAAGACCCCGTC
CCCAAAAAAATTTTTTTTTTAATAAACCCAAATTTGTTTGAAAACTTTTAAAAATTCAAATGATTTTTACAAGTT
TTAAATAAGCTCTCCCCAAACTTGCTTTATGCCTTCTTATTGCTTTTATGATATATATATGCTTGGCTAACTATA
TTTGCTTTTTGCTAACAATGCTCTGGGGTCTTTTTATGCATTTGCATTGCTCTTTCATCTCTGCTTGGATTATT
TTAAATCATTAGGAATTAAGTTATCTTTAAAATTTAAGTATCTTTTTTCCAAAACATTTTTTAATAGAATAAAAT
ATAATTTGATCTTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 549

MDFSRNLYDIGEQLDSEDLASLKFLSLDYIPQRKQEPIKDALMLFQRLQEKRMLEESNLSFLKELLFRINRLDLL
ITYLNTRKEEMERELQTPGRAQISAYRFHFCRMSWAEANSQCQTQSVPFWRRVDHLLIRVMLYQISEEVSRSELR
SFKFLLQEEISKCKLDDDMNLLDIFIEMEKRVILGEGKLDILKRVCAQINKSLLKIINDYEEFSKGEELCGVMTI
SDSPREQDSESQTLDKVYQMKSKPRGYCLIINNHNFAKAREKVPKLHSIRDRNGTHLDAGALTTTFEELHFEIKP
HDDCTVEQIYEILKIYQLMDHSNMDCFICCILSHGDKGIIYGTDGQEAPIYELTSQFTGLKCPSLAGKPKVFFIQ
ACQGDNYQKGIPVETDSEEQPYLEMDLSSPQTRYIPDEADFLLGMATVNNCVSYRNPAEGTWYIQSLCQSLRERC
PRGDDILTILTEVNYEVSNKDDKKNMGKQMPQPTFTLRKKLVFPSD

FIGURE 550

GTTTTTTTCCCTTCTGAGCA**ATG**GAGCTTACCATCTTTATCCTGAGACTGGCCATTTACATCCTGACATTTCCCT
TGTACCTGCTGAACTTTCTGGGCTTGTGGAGCTGGATATGCAAAAAATGGTTCCCCTACTTCTTGGTGAGGTTCA
CTGTGATATACAACGAACAGATGGCAAGCAAGAAGCGGGAGCTCTTCAGTAACCTGCAGGAGTTTGCGGGCCCCT
CCGGGAAACTCTCCCTGCTGGAAGTGGGCTGTGGCACGGGGGCCAACTTCAAGTTCTACCCACCTGGGTGCAGGG
TGACCTGTATTGACCCCAACCCCAACTTTGAGAAGTTTTTGATCAAGAGCATTGCAGAGAACCGACACCTGCAGT
TTGAGCGCTTTGTGGTAGCTGCCGGGGGAGAACATGCACCAGGTGGCTGATGGCTCTGTGGATGTGGTGGTCTGCA
CCCTGGTGCTGTGCTCTGTGAAGAACCAGGAGCGGATTCTCCGCGAGGTGTGCAGAGTGCTGAGACCGGGAGGGG
CTTTCTATTTCATGGAGCATGTGGCAGCTGAGTGTTCGACTTGGAATTACTTCTGGCAACAAGTCCTGGATCCTG
CCTGGCACCTTCTGTTTGATGGGTGCAACCTGACCAGAGAGAGCTGGAAGGCCCTGGAGCGGGCCAGCTTCTCTA
AGCTGAAGCTGCAGCACATCCAGGCCCCACTGTCCTGGGAGTTGGTGCGCCCTCATATCTATGGATATGCTGTGA
AA**TAG**TGTGAGCTGGCAGTTAAGAGCTGAATGGCTCAAAGAATTTAAAGCTTCAGTTTTACATTTAAAATGCTAA
GTGGGAGAAGAGAAACCTTTTTTTTGGGGGGCGGTTTTTTTGGTTTGTTGTTGGTTTTTTTTTTTTTTTGGCAA
GACTCCGTCTCAAAAAAAAAAAAAAAAAAAAAAAGAAGTAGAGACAGGGAGACAGGGTCTCACTGTGTTGCCTAG
GCCGGTCTTGAACTCCTGGGCTCAAGTGATTCTCCCACCTTGACCTCCTAAATTGTTGGGATTACAGGTGTGAGA
CAGTGCACCTGGCCGAAATAGCTCAAGTTTCTGAAAAACAAATCTGAATCTATTTGTTATTCTTAGCGTCACTGG
TCTGGCTTTCAGAATTAACATACAAGGTTGCCACACCTAGTTCTGCCCAGCTTTATGTCTTTTATTCCAGTATTC
CACCAAAGTTTGTTTTCCTGCATTCCAGTTCTCAAGTCTTAAGATAAAGATTGTACTTGACAGTTTAGTATATCC
ATAAAACTATTTGAGGTGGTTAAGGTTCTTGGGTTCATTTTCCTTAATACTTTGCTGAATATTGTAGATTGTAGG
CAATGAAAAAGTCTACTAAATTAGGAAAACCTTGAATAATTAGGTATCCTAGGTAAGAGCCCCTAAACATCAAGC
AATCTGTGAGTCTGTAAAGAAATAAATATTTTTTGGATTATTCTTATCTAATTCCACCCCTGTTGGAAGATGATT
TCTTTGTTCTTTGCAACTATGGAAGCTGTGAAAATCATCACAAGTGCCTCTGAAAGCGAGTGTTAGGTTGGTTAG
AGGGTTTAATATTTTCTGCAATGGTTTGTAGGAATTTTAATAAATGTAGTATATTTCTGAGATGATTTTGTAAA
AGTACTATTTTAAATATCAAATCAACCAATAAATTCACATTTGTGTTAGGAACAG

FIGURE 551

MELTIFILRLAIYILTFPLYLLNFLGLWSWICKKWFPYFLVRFTVIYNEQMASKKRELFSNLQEFAGPSGKLSLL
EVGCGTGANFKFYPPGCRVTCIDPNPNFEKFLIKSIAENRHLQFERFVVAAGENMHQVADGSVDVVVCTLVLCSV
KNQERILREVCRVLRPGGAFYFMEHVAAECSTWNYFWQQVLDPAWHLLFDGCNLTRESWKALERASFSKLKLQHI
QAPLSWELVRPHIYGYAVK

FIGURE 552

GGGCAACGGAGGGGAAATAAAAGGGAACGGCTCCGAATCTGCCCCAGCGGCCGCTGCGAGACCTCGGCGCCGACA
TCGCGACAGCGAAGCGCTTTGCACGCCAGGAAGGTCCCCTCTATGTGCTGCTGAGCCGGTCCTGGACGCGACGAG
CCCGCCCTCGGTCTTCGGAGCAGAATTCGCAAAAACGGAAGGACTGGAA**ATG**GCAGACCATATGATGGCAATGAA
CCACGGGCGCTTCCCCGACGGCACCAATGGGCTGCACCATCACCCTGCCCACCGCATGGGCATGGGGCAGTTCCC
GAGCCCCCATCACCACCAGCAGCAGCAGCCCCAGCACGCCTTCAACGCCCTAATGGGCGAGCACATACACTACGG
CGCGGGCAACATGAATGCCACGAGCGGCATCAGGCATGCGATGGGGCCGGGGACTGTGAACGGAGGGCACCCCCC
GAGCGCGCTGGCCCCCGCGGCCAGGTTTAACAACTCCCAGTTCATGGGTCCCCCGGTGGCCAGCCAGGGAGGCTC
CCTGCCGGCCAGCATGCAGCTGCAGAAGCTCAACAACCAGTATTTCAACCATCACCCCTACCCCCACAACCACTA
CATGCCGGATTTGCACCCTGCTGCAGGCCACCAGATGAACGGGACAAACCAGCACTTCCGAGATTGCAACCCCAA
GCACAGCGGCGGCAGCAGCACCCCCGGCGGCTCGGGCGGCAGCAGCACCCCCGGCGGCTCTGGCAGCAGCTCGGG
CGGCGGCGCGGGCAGCAGCAACAGCGGCGGCGGCAGCGGCAGCGGCAACATGCCCGCCTCCGTGGCCCACGTCCC
CGCTGCAATGCTGCCGCCCAATGTCATAGACACTGATTTCATCGACGAGGAAGTTCTTATGTCCTTGGTGATAGA
AATGGGTTTGGACCGCATCAAGGAGCTGCCCGAACTCTGGCTGGGGCAAAACGAGTTTGATTTTATGACGGACTT
CGTGTGCAAACAGCAGCCCAGCAGAGTGAGCTGT**TGA**CTCGATCGAAACCCCGGCGAAAGAAATCAAACCCCCAA
CTTCTTCGGCGTGAATTAAAAGAAACATTCCCTTAGACACAGTATCTCACTTTTCAGATCTTGAAAGGTTTGAGA
ACTTGGAAACAAAGTAAACTATAAACTTGTACAAATTGGTTTTAAAAAAAATTGCTGCCACTTTTTTTCCTGTTT
TTGTTTCGTTTTTGTAGCCTTGACATTCACCCACCTCCCTTATGTAGTTGAAATATCTAGCTAACTTGGTCTTTT
TCGTTGTTTGTTTTTACTCCTTTCCCTCACTTTCTCCAGTGCTCAACTGTTAGATATTAATCTTGGCAAACTGCT
TAATCTTGTGGATTTTGTAGATGGTTTCAAATGACTGAACTGCATTCAGATTACGAGTGAAAGGAAAAATTGCA
TTAGTTGGTTGCATGAACTTCGAAGGGCAGATATTACTGCACAAACTGCCATCTCGCTTCATTTTTTTAACTATG
CATTTGAGTACAGACTAATTTTTAAAATATGCTAAACTGGAAGATTAAACAGATGTGGGCCAAACTGTTCTGGAT
CAGGAAAGTCATACTGTTCACTTTCAAGTTGGCTGTCCCCCCCGCCGCCCCCCCCACCCCCATATGTACAGATGA
TAATAGGGTGTGGAATGTCGTCAGTGGCAAACATTTCACAGATTTTTATTTTGTTTCTGTCTTCAACATTTTTGA
CACTGTGCTAATAGTTATATTCAGTACATGAAAGATACTACTGTGTTGAAAGCTTTTTAGGAAATTTTGACAGT
ATTTTTGTACAAACATTTTTTTGAAAAAATACTTGTTAATTTATTCTATTTTAATTTGCCAATGTCAATAAAAA
GTTAAGAAAAAAAAAAAAAAAAAAAAAA

FIGURE 553

MADHMMAMNHGRFPDGTNGLHHHPAHRMGMGQFPSPHHHQQQQPQHAFNALMGEHIHYGAGNMNATSGIRHAMGP
GTVNGGHPPSALAPAARFNNSQFMGPPVASQGGSLPASMQLQKLNNQYFNHHPYPHNHYMPDLHPAAGHQMNGTN
QHFRDCNPKHSGGSSTPGGSGGSSTPGGSGSSSGGGAGSSNSGGGSGSGNMPASVAHVPAAMLPPNVIDTDFIDE
EVLMSLVIEMGLDRIKELPELWLGQNEFDFMTDFVCKQQPSRVSC

FIGURE 554

ACACGGACCAAGGAGTCTAACACGTGCGCGAGTCGGGGGCTCGCACGAAAGCCGCCGTGGCGCAATGAAGGTGAA
GGCCGGCGCGCTCGCCGGCCGAGGTGGGATCCCGAGGCCTCTCCAGTCCGCCGAGGGCGCACCACCGGCCCGTCT
CGCCCGCCGCGCCGGGGAGGTGGAGCACGAGCGCACGTGTTAGGACCCGAAAG**ATG**GTGAACTATGCCTGGGCAG .
GGCGAAGCCAGAGGAAACTCTGGTGGAGGTCCGTAGCGGTCCTGACGTGCAAATCGGTCGTCCGACCTGGGTATA
GGGGCGGGCTCCAGGCGAGGCGGTCGACGCTCCTGAAAACTTGCGCGCGCGCTCGCGCCACTGCGCCCGGAGCGA
TGAAGATGGTCGCGCCCTGGACGCGGTTCTACTCCAACAGCTGCTGCTTGTGCTGCCATGTCCGCACCGGCACCA
TCCTGCTCGGCGTCTGGTATCTGATCATCAATGCTGTGGTACTGTTGATTTTATTGAGTGCCCTGGCTGATCCGG
ATCAGTATAACTTTTCAAGTTCTGAACTGGGAGGTGACTTTGAGTTCATGGATGATGCCAACATGTGCATTGCCA
TTGCGATTTCTCTTCTCATGATCCTGATATGTGCTATGGCTACTTACGGAGCGTACAAGCAACGCGCAGCCTGGA
TCATCCCATTCTTCTGTTACCAGATCTTTGACTTTGCCCTGAACATGTTGGTTGCAATCACTGTGCTTATTTATC
CAAACTCCATTCAGGAATACATACGGCAACTGCCTCCTAATTTTCCCTACAGAGATGATGTCATGTCAGTGAATC
CTACCTGTTTGGTCCTTATTATTCTTCTGTTTATTAGCATTATCTTGACTTTTAAGGGTTACTTGATTAGCTGTG
TTTGGAACTGCTACCGATACATCAATGGTAGGAACTCCTCTGATGTCCTGGTTTATGTTACCAGCAATGACACTA
CGGTGCTGCTACCCCCGTATGATGATGCCACTGTGAATGGTGCTGCCAAGGAGCCACCGCCACCTTACGTGTCTG
CC**TAA**GCCTTCAAGTGGGCGGAGCTGAGGGCAGCAGCTTGACTTTGCAGACATCTGAGCAATAGTTCTGTTATTT
CACTTTTGCCATGAGCCTCTCTGAGCTTGTTTGTTGCTGAAATGCTACTTTTTAAAATTTAGATGTTAGATTGAA
AACTGTAGTTTTCAACATATGCTTTGCTAGAACACTGTGATAGATTAACTGTAGAATTCTTCCTGTACGATTGGG
GATATAATGGGCTTCACTAACCTTCCCTAGGCATTGAAACTTCCCCCAAATCTGATGGACCTAGAAGTCTGCTTT
TGTACCTGCTGGGCCCCAAAGTTGGGCATTTTTCTCTCTGTTCCCTCTCTTTTGAAAATGTAAAATAAAACCAAA
AATAGACAACTTTTTCTTCAGCCATTCCAGCATAGAGAACAAAACCTTATGGAAACAGGAATGTCAATTGTGTAA
TCATTGTTCTAATTAGGTAAATAGAAGTCCTTATGTATGTGTTACAAGAATTTCCCCCACAACATCCTTTATGAC
TGAAGTTCAATGACAGTTTGTGTTTGGGTGGTAAAGGATTTTCTCCATGGCCTGAATTAAGACCATTAGAAAGCA
CCAGGCCGTGGGAGCAGTGACCATCTGCTGACTGTTCTTGTGGATCTTGTGTCCAGGGACATGGGGTGACATGCC
TCGTATGTGTTAGAGGGTGGAATGGATGTGTTTGGCGCTGCATGGGATCTGGTGCCCCTCTTCTCCTGGATTCAC
ATCCCCACCCAGGGCCCGCTTTTACTAAGTGTTCTGCCCTAGATTGGTTCAAGGAGGTCATCCAACTGACTTTAT
CAAGTGGAATTGGGATATATTTGATATACTTCTGCCTAACAACATGGAAAAGGGTTTTCTTTTCCCTGCAAGCTA
CATCCTACTGCTTTGAACTTCCAAGTATGTCTAGTCACCTTTTAAAATGTAAACATTTTCAGAAAAATGAGGATT
GCCTTCCTTGTATGCGCTTTTTACCTTGACTACCTGAATTGCAAGGGATTTTTATATATTCATATGTTACAAAGT
CAGCAACTCTCCTGTTGGTTCATTATTGAATGTGCTGTAAATTAAGTTGTTTGCAATTAAAACAAGGTTTGCCCA
CAAAAAAAAAA

FIGURE 555

MVNYAWAGRSQRKLWWRSVAVLTCKSVVRPGYRGGLQARRSTLLKTCARARATAPGAMKMVAPWTRFYSNSCCLC
CHVRTGTILLGVWYLIINAVVLLILLSALADPDQYNFSSSELGGDFEFMDDANMCIAIAISLLMILICAMATYGA
YKQRAAWIIPFFCYQIFDFALNMLVAITVLIYPNSIQEYIRQLPPNFPYRDDVMSVNPTCLVLIILLFISIILTF
KGYLISCVWNCYRYINGRNSSDVLVYVTSNDTTVLLPPYDDATVNGAAKEPPPPYVSA

FIGURE 556

GGACAACCGGCTGGGGTCCTTGCGCGCCGCGGCTCAGGGAGGAGCACCGACTGCGCCGCACCCTGAGAG**ATG**GTT
GGTGCCATGTGGAAGGTGATTGTTTCGCTGGTCCTGTTGATGCCTGGCCCCTGTGATGGGCTGTTTCGCTCCCTA
TACAGAAGTGTTTCCATGCCACCTAAGGGAGACTCAGGACAGCCATTATTTCTCACCCCTTACATTGAAGCTGGG
AAGATCCAAAAAGGAAGAGAATTGAGTTTGGTCGGCCCTTTCCCAGGACTGAACATGAAGAGTTATGCCGGCTTC
CTCACCGTGAATAAGACTTACAACAGCAACCTCTTCTTCTGGTTCTTCCCAGCTCAGATACAGCCAGAAGATGCC
CCAGTAGTTCTCTGGCTACAGGGTGGGCCGGGAGGTTCATCCATGTTTGGACTCTTTGTGGAACATGGGCCTTAT
GTTGTCACAAGTAACATGACCTTGCGTGACAGAGACTTCCCCTGGACCACAACGCTCTCCATGCTTTACATTGAC
AATCCAGTGGGCACAGGCTTCAGTTTTACTGATGATACCCACGGATATGCAGTCAATGAGGACGATGTAGCACGG
GATTTATACAGTGCACTAATTCAGTTTTTCCAGATATTTCCTGAATATAAAAATAATGACTTTTATGTCACTGGG
GAGTCTTATGCAGGGAAATATGTGCCAGCCATTGCACACCTCATCCATTCCCTCAACCCTGTGAGAGAGGTGAAG
ATCAACCTGAACGGAATTGCTATTGGAGATGGATATTCTGATCCCGAATCAATTATAGGGGGCTATGCAGAATTC
CTGTACCAAATTGGCTTGTTGGATGAGAAGCAAAAAAAGTACTTCCAGAAGCAGTGCCATGAATGCATAGAACAC
ATCAGGAAGCAGAACTGGTTTGAGGCCTTTGAAATACTGGATAAACTACTAGATGGCGACTTAACAAGTGATCCT
TCTTACTTCCAGAATGTTACAGGATGTAGTAATTACTATAACTTTTTGCGGTGCACGGAACCTGAGGATCAGCTT
TACTATGTGAAATTTTTGTCACTCCCAGAGGTGAGACAAGCCATCCACGTGGGGAATCAGACTTTTAATGATGGA
ACTATAGTTGAAAAGTACTTGCGAGAAGATACAGTACAGTCAGTTAAGCCATGGTTAACTGAAATCATGAATAAT
TATAAGGTTCTGATCTACAATGGCCAACTGGACATCATCGTGGCAGCTGCCCTGACAGAGCGCTCCTTGATGGGC
ATGGACTGGAAAGGATCCCAGGAATACAAGAAGGCAGAAAAAAAGTTTGGAAGATCTTTAAATCTGACAGTGAA
GTGGCTGGTTACATCCGGCAAGTGGGTGACTTCCATCAGGTAATTATTCGAGGTGGAGGACATATTTTACCCTAT
GACCAGCCTCTGAGAGCTTTTGACATGATTAATCGATTCATTTATGGAAAAGGATGGGATCCTTATGTTGGA**TAA**

ACTACCTTCCCAAAAGAGAACATCAGAGGTTTTCATTGCTGAAAAGAAAATCGTAAAAACAGAAAATGTCATAGG
AATAAAAAAATTATCTTTTCATATCTGCAAGATTTTTTTCATCAATAAAAATTATCCTTGAAA

FIGURE 557

MVGAMWKVIVSLVLLMPGPCDGLFRSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGRELSLVGPFPGLNMKSYA
GFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMFGLFVEHGPYVVTSNMTLRDRDFPWTTTLSMLY
IDNPVGTGFSFTDDTHGYAVNEDDVARDLYSALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVRE
VKINLNGIAIGDGYSDPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS
DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLREDTVQSVKPWLTEIM
NNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWKIFKSDSEVAGYIRQVGDFHQVIIRGGGHIL
PYDQPLRAFDMINRFIYGKGWDPYVG

FIGURE 558

CTACCTCTTCCTCTCCACGCGGTTGAGAAGACCGGTCGGCCTGGGCAACCTGCGCTGAAGATGCCGGGAAAACTC
CGTAGTGACGCTGGTTTGGAATCAGACACCGCAATGAAAAAAGGGGAGACACTGCGAAAGCAAACCGAGGAGAAA
GAGAAAAAAGAGAAGCCAAAATCTGATAAGACTGAAGAGATAGCAGAAGAGGAAGAAACTGTTTTCCCCAAAGC
TAAACAAGTTAAAAAGAAAGCAGAGCCTTCTGAAGTTGAC**ATG**AATTCTCCTAAATCCAAAAAGGCAAAAAAGAA
AGAGGAGCCATCTCAAAATGACATTTCTCCTAAAACCAAAAGTTTGAGAAAGAAAAAGGAGCCCATTGAAAAGAA
AGTGGTTTCTTCTAAAACCAAAAAAGTGACAAAAAATGAGGAGCCTTCTGAGGAAGAAATAGATGCTCCTAAGCC
CAAGAAGATGAAGAAAGAAAAGGAAATGAATGGAGAAACTAGAGAGAAAAGCCCCAAACTGAAGAATGGATTTCC
TCATCCTGAACCGGACTGTAACCCCAGTGAAGCTGCCAGTGAAGAAAGTAACAGTGAGATAGAGCAGGAAATACC
TGTGGAACAAAAAGAAGGCGCTTTCTCTAATTTTCCCATATCTGAAGAAACTATTAAACTTCTCAAAGGCCGAGG
AGTGACCTTCCTATTTCCTATACAAGCAAAGACATTCCATCATGTTTACAGCGGGAAGGACTTAATTGCACAGGC
ACGGACAGGAACTGGGAAGACATTCTCCTTTGCCATCCCTTTGATTGAGAAACTTCATGGGGAACTGCAAGACAG
GAAGAGAGGCCGTGCCCCTCAGGTACTGGTTCTTGCACCTACAAGAGAGTTGGCAAATCAAGTAAGCAAAGACTT
CAGTGACATCACAAAAAAGCTGTCAGTGGCTTGTTTTTATGGTGGAACTCCCTATGGAGGTCAATTTGAACGCAT
GAGGAATGGGATTGATATCCTGGTTGGAACACCAGGTCGTATCAAAGACCACATACAGAATGGCAAACTAGATCT
CACCAAACTTAAGCATGTTGTCCTGGATGAAGTGGACCAGATGTTGGATATGGGATTTGCTGATCAAGTGGAAGA
GATTTTAAGTGTGGCATACAAGAAAGATTCTGAAGACAATCCCCAAACATTGCTTTTTCTGCAACTTGCCCTCA
TTGGGTATTTAATGTTGCCAAGAAATACATGAAATCTACATATGAACAGGTGGACCTGATTGGTAAAAAGACTCA
GAAAACGGCAATAACTGTGGAGCATCTGGCTATTAAGTGCCACTGGACTCAGAGGGCAGCAGTTATTGGGGATGT
CATCCGAGTATATAGTGGTCATCAAGGACGCACTATCATCTTTTGTGAAACCAAGAAAGAAGCCCAGGAGCTGTC
CCAGAATTCAGCTATAAAGCAGGATGCTCAGTCCTTGCATGGAGACATTCCACAGAAGCAAAGGGAAATCACCCT
GAAAGGTTTTAGAAATGGTAGTTTTGGAGTTTTGGTGGCAACCAATGTTGCTGCACGTGGGTTAGACATCCCTGA
GGTTGATTTGGTTATACAAAGCTCTCCACCAAAGGATGTAGAGTCCTACATTCATCGATCCGGGCGGACAGGCAG
AGCTGGAAGGACGGGGGTGTGCATCTGCTTTTATCAGCACAAGGAAGAATATCAGTTAGTACAAGTGGAGCAAAA
AGCGGGAATTAAGTTCAAACGAATAGGTGTTCCTTCTGCAACAGAAATAATAAAAGCTTCCAGCAAAGATGCCAT
CAGGCTTTTGGATTCCGTGCCTCCCACTGCCATTAGTCACTTCAAACAATCAGCTGAGAAGCTGATAGAGGAGAA
GGGAGCTGTGGAAGCTCTGGCAGCAGCACTGGCCCATATTTCAGGTGCCACGTCCGTAGACCAGCGCTCCTTGAT
CAACTCAAATGTGGGTTTTGTGACCATGATCTTGCAGTGCTCAATTGAAATGCCAAATATTAGTTATGCTTGGAA
AGAACTTAAAGAGCAGCTGGGCGAGGAGATTGATTCCAAAGTGAAGGGAATGGTTTTTCTCAAAGGAAAGCTGGG
TGTTTGCTTTGATGTACCTACCGCATCAGTAACAGAAATACAGGAGAAATGGCATGATTCACGACGCTGGCAGCT
CTCTGTGGCCACAGAGCAACCAGAACTGGAAGGACCACGGGAAGGATATGGAGGCTTCAGGGGACAGCGGGAAGG
CAGTCGAGGCTTCAGGGGACAGCGGGACGGAAACAGAAGATTCAGAGGACAGCGGGAAGGCAGTAGAGGCCCGAG
AGGACAGCGATCAGGAGGTGGCAACAAAAGTAACAGATCCCAAAACAAAGGCCAGAAGCGGAGTTTCAGTAAAGC
ATTTGGTCAA**TAA**TTAGAAATAGAAGATTTATATAGCAAAAGAGAATGATGTTTGGCAATATAGAACTGAACAT
TATTTTTCATGCAAAGTTAAAAGCACATTGTGCCTCCTTTTGACCACTTGCCAAGTCCCTGTCTCTTTCAGACAC
AGACAAGCTTCATTTAAATTATTTCATCTGATCATTATCATTTATAACTTTATTGTTACTTCATCAGTTTTTCCT
TTTGAAAGGTGTATGAATTCATTACATTTTTATTCTAATGTATTATCTGTAGATTAGAAGATAAAATCAAGCATG
TATCTGCCTATACTTTGTGAGTTCACCTGTCTTTATACTCAAAAGTGTCCCTTAATAGTGTCCTTCCCTGAAATA
AATACCTAAGGGAGTGTAACAGTCTCTGGAGGACCACTTTGAGCCTTTGGAAGTTAAGGTTTCCTCAGCCACCTG
CCGAACAGTTTCTCATGTGGTCCTATTATTTGTCTACTGAGACTTAATACTGAGCAATGTTTTGAAACAAGATTT
CAAACTAATCTGGGTTGTAATACAGTTTATACCAGTGTATGCTCTAGACTTGGAAGATGTAGTATGTTTGATGTG
GATTACCTATACTTATGTTCGTTTTGATACATTTTTAGCTTCTCATTATAAGGTGATTCATGCTTTAGTGAATTC
TTCATAGATAGTATATATAAAAGTACATTTTAATAGAAAGCCAGGGTTTTAAGGAATTTCACATGTATAAGGTGG
CTCCATAGCTTTATTTGTAAGTAGGCTGGATAAATGGTGCTTAAATGGTAATGTACTCCACTTCTTCCTATTGGA
AGATTAACATTATTTACCAAGAAGGACTTAAGGGAGTAAGGGGCGCAGATTAGCATTGCTCAAGAGTATGTAAAA
AAAAAAAAAAAAAAAAAAA

FIGURE 559

MNSPKSKKAKKKEEPSQNDISPKTKSLRKKKEPIEKKVVSSKTKKVTKNEEPSEEEIDAPKPKKMKKEKEMNGET
REKSPKLKNGFPHPEPDCNPSEAASEESNSEIEQEIPVEQKEGAFSNFPISEETIKLLKGRGVTFLFPIQAKTFH
HVYSGKDLIAQARTGTGKTFSFAIPLIEKLHGELQDRKRGRAPQVLVLAPTRELANQVSKDFSDITKKLSVACFY
GGTPYGGQFERMRNGIDILVGTPGRIKDHIQNGKLDLTKLKHVVLDEVDQMLDMGFADQVEEILSVAYKKDSEDN
PQTLLFSATCPHWVFNVAKKYMKSTYEQVDLIGKKTQKTAITVEHLAIKCHWTQRAAVIGDVIRVYSGHQGRTII
FCETKKEAQELSQNSAIKQDAQSLHGDIPQKQREITLKGFRNGSFGVLVATNVAARGLDIPEVDLVIQSSPPKDV
ESYIHRSGRTGRAGRTGVCICFYQHKEEYQLVQVEQKAGIKFKRIGVPSATEIIKASSKDAIRLLDSVPPTAISH
FKQSAEKLIEEKGAVEALAAALAHISGATSVDQRSLINSNVGFVTMILQCSIEMPNISYAWKELKEQLGEEIDSK
VKGMVFLKGKLGVCFDVPTASVTEIQEKWHDSRRWQLSVATEQPELEGPREGYGGFRGQREGSRGFRGQRDGNRR
FRGQREGSRGPRGQRSGGGNKSNRSQNKGQKRSFSKAFGQ

FIGURE 560

CGATTTCATTCCTCGCTCCCCACAGGTCCCTCTCCCCAAAATATTCCCATCTTGTCCTAGCCCATCCCCCAGACT
ATCTCAAGGACCAGCTGTCCCCACGCCCCCGACCTCCACTAGGCCTGTGCCACCCGCTGCCTGCAGGAAGACGCC
CGGTCCCGGGCCGGGTTAGCCCC**ATG**GGAACGCAGCGCCTGTGTGGCCGCGGGACTCAAGGCTGGCCTGGCTCAA
GTGAACAGCACGTCCAGGAGGCGACCTCGTCCGCGGGTTTGCATTCTGGGGTGGACGAGCTGGGGGTTCGGTCCG
AGCCCGGTGGGAGGCTCCCGGAGCGCAGCCTGGGCCCAGCCCACCCCGCGCCGGCGGCCATGGCAGGCACCCTGG
ACCTGGACAAGGGCTGCACGGTGGAGGAGCTGCTCCGCGGGTGCATCGAAGCCTTCGATGACTCCGGGAAGGTGC
GGGACCCGCAGCTGGTGCGCATGTTCCTCATGATGCACCCCTGGTACATCCCCTCCTCTCAGCTGGCGGCCAAGC
TGCTCCACATCTACCAACAATCCCGGAAGGACAACTCCAATTCCCTGCAGGTGAAAACGTGCCACCTGGTCAGGT
ACTGGATCTCCGCCTTCCCAGCGGAGTTTGACTTGAACCCGGAGTTGGCTGAGCAGATCAAGGAGCTGAAGGCTC
TGCTAGACCAAGAAGGGAACCGACGGCACAGCAGCCTAATCGACATAGACAGCGTCCCTACCTACAAGTGGAAGC
GGCAGGTGACTCAGCGGAACCCTGTGGGACAGAAAAAGCGCAAGATGTCCCTGTTGTTTGACCACCTGGAGCCCA
TGGAGCTGGCGGAGCATCTCACCTACTTGGAGTATCGCTCCTTCTGCAAGATCCTGTTTCAGGACTATCACAGTT
TCGTGACTCATGGCTGCACTGTGGACAACCCCGTCCTGGAGCGGTTCATCTCCCTCTTCAACAGCGTCTCACAGT
GGGTGCAGCTCATGATCCTCAGCAAACCCACAGCCCCGCAGCGGGCCCTGGTCATCACACACTTTGTCCACGTGG
CGGAGAAGCTGCTACAGCTGCAGAACTTCAACACGCTGATGGCAGTGGTCGGGGGCCTGAGCCACAGCTCCATCT
CCCGCCTCAAGGAGACCCACAGCCACGTTAGCCCTGAGACCATCAAGCTCTGGGAGGGTCTCACGGAACTAGTGA
CGGCGACAGGCAACTATGGCAACTACCGGCGTCGGCTGGCAGCCTGTGTGGGCTTCCGCTTCCCGATCCTGGGTG
TGCACCTCAAGGACCTGGTGGCCCTGCAGCTGGCACTGCCTGACTGGCTGGACCCAGCCCGGACCCGGCTCAACG
GGGCCAAGATGAAGCAGCTCTTTAGCATCCTGGAGGAGCTGGCCATGGTGACCAGCCTGCGGCCACCAGTACAGG
CCAACCCCGACCTGCTGAGCCTGCTCACGGTGTCTCTGGATCAGTATCAGACGGAGGATGAGCTGTACCAGCTGT
CCCTGCAGCGGGAGCCGCGCTCCAAGTCCTCGCCAACCAGCCCCACGAGTTGCACCCCACCACCCCGGCCCCCGG
TACTGGAGGAGTGGACCTCGGCTGCCAAACCCAAGCTGGATCAGGCCCTCGTGGTGGAGCACATCGAGAAGATGG
TGGAGTCTGTGTTCCGGAACTTTGACGTCGATGGGGATGGCCACATCTCACAGGAAGAATTCCAGATCATCCGTG
GGAACTTCCCTTACCTCAGCGCCTTTGGGGACCTCGACCAGAACCAGGATGGCTGCATCAGCAGGGAGGAGATGG
TTTCCTATTTCCTGCGCTCCAGCTCTGTGTTGGGGGGGCGCATGGGCTTCGTACACAACTTCCAGGAGAGCAACT
CCTTGCGCCCCGTCGCCTGCCGCCACTGCAAAGCCCTGATCCTGGGCATCTACAAGCAGGGCCTCAAATGCCGAG
CCTGTGGAGTGAACTGCCACAAGCAGTGCAAGGATCGCCTGTCAGTTGAGTGTCGGCGCAGGGCCCAGAGTGTGA
GCCTGGAGGGGTCTGCACCCTCACCCTCACCCATGCACAGCCACCATCACCGCGCCTTCAGCTTCTCTCTGCCCC
GCCCTGGCAGGCGAGGCTCCAGGCCTCCAGAGATCCGTGAGGAGGAGGTACAGACGGTGGAGGATGGGGTGTTTG .
ACATCCACTTG**TAA**TAGATGCTGTGGTTGGATCAAGGACTCATTCCTGCCTTGGAGAAAATACTTCAACCAGAGC
AGGGAGCCTGGGGGTGTCGGGGCAGGAGGCTGGGGATGGGGGTGGGATATGAGGGTGGCATGCAGCTGAGGGCAG
GGCCAGGGCTGGTGTCCCTAAGGTTGTACAGACTCTTGTGAATATTTGTATTTTCCAGATGGAATAAAAAGGCCC
GTGTAATTAACCTTCA

FIGURE 561

MGTQRLCGRGTQGWPGSSEQHVQEATSSAGLHSGVDELGVRSEPGGRLPERSLGPAHPAPAAMAGTLDLDKGCTV
EELLRGCIEAFDDSGKVRDPQLVRMFLMMHPWYIPSSQLAAKLLHIYQQSRKDNSNSLQVKTCHLVRYWISAFPA
EFDLNPELAEQIKELKALLDQEGNRRHSSLIDIDSVPTYKWKRQVTQRNPVGQKKRKMSLLFDHLEPMELAEHLT
YLEYRSFCKILFQDYHSFVTHGCTVDNPVLERFISLFNSVSQWVQLMILSKPTAPQRALVITHFVHVAEKLLQLQ
NFNTLMAVVGGLSHSSISRLKETHSHVSPETIKLWEGLTELVTATGNYGNYRRRLAACVGFRFPILGVHLKDLVA
LQLALPDWLDPARTRLNGAKMKQLFSILEELAMVTSLRPPVQANPDLLSLLTVSLDQYQTEDELYQLSLQREPRS
KSSPTSPTSCTPPPRPPVLEEWTSAAKPKLDQALVVEHIEKMVESVFRNFDVDGDGHISQEEFQIIRGNFPYLSA
FGDLDQNQDGCISREEMVSYFLRSSSVLGGRMGFVHNFQESNSLRPVACRHCKALILGIYKQGLKCRACGVNCHK
QCKDRLSVECRRRAQSVSLEGSAPSPSPMHSHHHRAFSFSLPRPGRRGSRPPEIREEEVQTVEDGVFDIHL

FIGURE 562

GCCTGTCCTGACACAATGTGGCTGGGTCCAGACATGAAGAGGTGCTACCGAGCACCTCAATCTACCTCAACTACG
ACGTTAGCTTCTACCATGACGAGGACAGTACCTGCCACCACAAGAGCCCCCGGGACCACCGTCCACAGATCCACC
TACCAGAACCACAGCACAGAGACACCAAGCCTGACAGCTGCAGTCCCAAGCTCAGTTAGTGTCCCCAGGGCTCCC
AGCATCAGCCCGTCTACCCTAAGCCCTGCAACCAGCAACCACTCCCAGCACTATGCAAATGAAGACAGTAAGATG
GGCTCAACAGTCACTGCCGCTGTTATCGGGATCATCGTGCCCATAGTGGTGATAGCCCTCCTGTGCATGAGTGGA
TACCTGATCTGGAGAAACTGGAAGCGGAAGAACACCAAAAGCATGAATTTTGACAACCCAGTCTACAGGAAAACA
ACAGAAGAAGAAGACGAAGATGAGCTCCATATAGGGAGAACTGCTCAGATTGGCCATGTCTATCCTGCAGCAATC
AGCAGCTTTGATCGCCCACTGTGGGCAGAGCCCTGTCTTGGGGAGACCAGAGAACCGGAAGACCCAGCCCCTGCC
CTCAAGGAGCTTTTTGTCTTGCCGGGGGAACCAAGGTCACAGCTGCACCAACTCCCGAAGAACCCTCTTTCCGAG
CTGCCTGTCGTCAAATCCAAGCGAGTGGCATTAAGCCTTGAAGATGATGGACTACCCTGAGGATGGGATCACCCC
CTTCGTGCCTCATGGAATTCAGTCCCATGCACTACACTCTGGATGGTGTATGACTGGATGAATGGGTTTCTATAT
ATGGGTCTGTGTGAGTGTATGTGTGTGTGTGATTTTTTTTTTAAATTTATGTTGCGGAAAGGTAACCACAAAGTT
ATGATGAACTGCAAACATCCAAAGGATGTGAGAGTTTTTCTATGTATAATGTTTTATACACTTTTTAACTGGTTG
CACTACCCATGAGGAATTCGTGGAATGGCTACTGCTGACTAACATGATGCACATAACCAAATGGGGGCCAATGGC
ACAGTACCTTACTCATCATTTAAAAACTATATTTACAGAAGATGTTTGGTTGCTGGGGGGGCTTTTTTTAGGTTT
TGGGGCATTTGTTTTTTGTAAATAAGATGATTATGCTTTGTGGCTATCCATCAACATAAGTAAAAAAAAAAAAAA
AACACTTCAACTCCCTCCCCCATTTAGATTATTTATTAACATATTTTAAAAATCAGATGAGTTCTATAAATAATT
TAGAGAAGTGAGAGTATTTATTTTTGGCATGTTTGGCCCACCACACAGACTCTGTGTGTGTATGTGTGTGTTTAT
ATGTGTATGTGTGTGACAGAAAAATCTGTAGAGAAGAGGCACATCTATGGCTACTGTTCAAATACATAAAGATAA
ATTTATTTTCACACAGTCCACAAGGGGTATATCTTGTAGTTTTCAGAAAAGCCTTTGGAAATCTGGATCAGAAAA
TAGATACCATGGTTTGTGCAATTATGTAGTAAAAAAGGCAAATCTTTTCACCTCTGGCTATTCCTGAGACCCCAG
GAAGTCAGGAAAAGCCTTTCAGCTCACCCATGGCTGCTGTGACTCCTACCAGGGCTTTCTTGGCTTTGGCGAAGG
TCAGTGTACAGACATTCCATGGTACCAGAGTGCTCAGAAACTCAAGATAGGATATGCCTCACCCTCAGCTACTCC
TTGTTTTAAAGTTCAGCTCTTTGAGTAACTTCTTCAATTTCTTTCAGGACACTTGGGTTGAATTCAGTAAGTTTC
CTCTGAAGCACCCTGAAGGGTGCCATCCTTACAGAGCTAAGTGGAGACGTTTCCAGATCAGCCCAAGTTTACTAT
AGAGACTGGCCCAGGCACTGAATGTCTAGGACATGCTGTGGATGAAGATAAAGATGGTGGAATAGGTTTTATCAC
ATCTCTTATTTCTCTTTTCCCCTTACTCTCTACCATTTCCTTTATGTGGGGAAACATTTTAAGGTAATAAATAGG
TTACTTACCATCATATGTTCATATAGATGAAACTAATTTTTGGCTTAAGTCAGAACAACTGGCCAAAATTGAAGT
CATATTTGAGGGGGGGAAATGGCATACGCAATATTATATTATATTGGATATTTATGTTCACACAGGAATTTGGTTT .
ACTGCTTTGTAAATAAAAGGAAAAACTCCGGGTAAAAAAAAAAAAAAAAAAAAAA

FIGURE 563

GGGAGGACCCCAATCTAGGCCCAAGAGGGAAAGGCCACGTGCCTGTATGAGCGTATGAGCATGTGCATGCGCGTG
TGTGCACAGGGTGGTGCACCTGGCAGGGGTCCTTGAGTGAGGCATGCCCCATTCTGTAGCAGGGAACCTGGA**ATG**

GGCTGTGTGTTCTGCAAGAAATTGGAGCCGGTGGCCACGGCCAAGGAGGATGCTGGCCTGGAAGGGGACTTCAGA
AGCTACGGGGCAGCAGACCACTATGGGCCTGACCCCACTAAGGCCCGGCCTGCATCCTCATTTGCCCACATCCCC
AACTACAGCAACTTCTCCTCTCAGGCCATCAACCCTGGCTTCCTTGATAGTGGCACCATCAGGGGTGTGTCAGGG
ATTGGGGTGACCCTGTTCATTGCCCTGTATGACTATGAGGCTCGAACTGAGGATGACCTCACCTTCACCAAGGGC
GAGAAGTTCCACATCCTGAACAATACTGAAGGTGACTGGTGGGAGGCTCGGTCTCTCAGCTCCGGAAAAACTGGC
TGCATTCCCAGCAACTACGTGGCCCCTGTTGACTCAATCCAAGCTGAAGAGTGGTACTTTGGAAAGATTGGGAGA
AAGGATGCAGAGAGGCAGCTGCTTTCACCAGGCAACCCCCAGGGGGCCTTTCTCATTCGGGAAAGCGAGACCACC
AAAGGTGCCTACTCCCTGTCCATCCGGGACTGGGATCAGACCAGAGGCGATCATGTGAAGCATTACAAGATCCGC
AAACTGGACATGGGCGGCTACTACATCACCACACGGGTTCAGTTCAACTCGGTGCAGGAGCTGGTGCAGCACTAC
ATGGAGGTGAATGACGGGCTGTGCAACCTGCTCATCGCGCCCTGCACCATCATGAAGCCGCAGACGCTGGGCCTG
GCCAAGGACGCCTGGGAGATCAGCCGCAGCTCCATCACGCTGGAGCGCCGGCTGGGCACCGGCTGCTTCGGGGAT
GTGTGGCTGGGCACGTGGAACGGCAGCACTAAGGTGGCGGTGAAGACGCTGAAGCCGGGCACCATGTCCCCGAAG
GCCTTCCTGGAGGAGGCGCAGGTCATGAAGCTGCTGCGGCACGACAAGCTGGTGCAGCTGTACGCCGTGGTGTCG
GAGGAGCCCATCTACATCGTGACCGAGTTCATGTGTCACGGCAGCTTGCTGGATTTTCTCAAGAACCCAGAGGGC
CAGGATTTGAGGCTGCCCCAATTGGTGGACATGGCAGCCCAGGTAGCTGAGGGCATGGCCTACATGGAACGCATG
AACTACATTCACCGCGACCTGAGGGCAGCCAACATCCTGGTTGGGGAGCGGCTGGCGTGCAAGATCGCAGACTTT
GGCTTGGCGCGTCTCATCAAGGACGATGAGTACAACCCCTGCCAAGGTTCCAAGTTCCCCATCAAGTGGACAGCC
CCAGAAGCTGCCCTCTTTGGCAGATTCACCATCAAGTCAGACGTGTGGTCCTTTGGGATCCTGCTCACTGAGCTC
ATCACCAAGGGCCGAATCCCCTACCCAGGCATGAATAAACGGGAAGTGTTGGAACAGGTGGAGCAGGGCTACCAC
ATGCCGTGCCCTCCAGGCTGCCCAGCATCCCTGTACGAGGCCATGGAACAGACCTGGCGTCTGGACCCGGAGGAG
AGGCCTACCTTCGAGTACCTGCAGTCCTTCCTGGAGGACTACTTCACCTCCGCTGAACCACAGTACCAGCCCGGG
GATCAGACA**TAG**CCTGTCCGGGCATCAACCCTCTCTGGCGGTGGCCACCAGTCCTTGCCAATCCCCAGAGCTGTT
CTTCCAAAGCCCCCAGGCTGGCTTAGAACCCCATAGAGTCCTAGCATCACCGAGGACGTGGCTGCTCTGACACCA
CCTAGGGCAACCTACTTGTTTTACAGATGGGGCAAAAGGAGGCCCAGAGCTGATCTCTCATCCGCTCTGGCCCCA
AGCACTATTTCTTCCTTTTCCACTTAGGCCCCTACATGCCTGTAGCCCTTTCTCACTCCATCCCCACCCAAAAGT
GCTCAGACCTTGTCTAGTTATTTATAAACTGTATGTACCTCCCTCACTTCTCTCCTATCACTGCTTTCCTACTCT
CCTTTTATCTCACTCTAGTCCAGGTGCCAAGAATTTCCCTTCTACCCTCTATTCTCTTGTGTCTGTAAGTTACAA
AGTCAGGAAAAGTCTTGGCTGGACCCCTTTCCTGCTGGGTGGATGCAGTGGTCCAGGACTGGGGTCTGGGCCCAG
GTTTGAGGGAGAAGTTTGCAGAGCACTTCCCACCTCTCTGAATAGTGTGTATGTGTTGATTTATTGATTCTGTAA
ATAAGTAAAATGACAATATGAATCCTCCA

FIGURE 564

MGCVFCKKLEPVATAKEDAGLEGDFRSYGAADHYGPDPTKARPASSFAHIPNYSNFSSQAINPGFLDSGTIRGVS
GIGVTLFIALYDYEARTEDDLTFTKGEKFHILNNTEGDWWEARSLSSGKTGCIPSNYVAPVDSIQAEEWYFGKIG
RKDAERQLLSPGNPQGAFLIRESETTKGAYSLSIRDWDQTRGDHVKHYKIRKLDMGGYYITTRVQFNSVQELVQH
YMEVNDGLCNLLIAPCTIMKPQTLGLAKDAWEISRSSITLERRLGTGCFGDVWLGTWNGSTKVAVKTLKPGTMSP
KAFLEEAQVMKLLRHDKLVQLYAVVSEEPIYIVTEFMCHGSLLDFLKNPEGQDLRLPQLVDMAAQVAEGMAYMER
MNYIHRDLRAANILVGERLACKIADFGLARLIKDDEYNPCQGSKFPIKWTAPEAALFGRFTIKSDVWSFGILLTE
LITKGRIPYPGMNKREVLEQVEQGYHMPCPPGCPASLYEAMEQTWRLDPEERPTFEYLQSFLEDYFTSAEPQYQP
GDQT

FIGURE 565A

GCGAGAGGAGTCGGGATCTGCGCTGCAGCCACCGCCGCGGTTGATACTACTTTGACCTTCCGAGTGCAGTGAGGC
ATACATCACAATTTGGAATTATGCATTGGTTTATCAATTTACTTGTTTATTGTCACCCTGCTGCCCAGATATGAC
TTCATGAGGACAGTGATGTGTGTTCTGAAATTGTGAACCATGAGTCTAGTACTTAATGATCTGCTTATCTGCTGC
CGTCAACTAGAACATGATAGAGCTACAGAACGAAAGAAAGAAGTTGAGAAATTTAAGCGCCTGATTCGAGATCCT
GAAACAATTAAACATCTAGATCGGCATTCAGATTCCAAACAAGGAAAATATTTGAATTGGGATGCTGTTTTTAGA
TTTTTACAGAAATATATTCAGAAAGAAACAGAATGTCTGAGAATAGCAAAACCAAATGTATCAGCCTCAACACAA
GCCTCCAGGCAGAAAAAGATGCAGGAAATCAGTAGTTTGGTCAAATACTTCATCAAATGTGCAAACAGAAGAGCA
CCTAGGCTAAAATGTCAAGAACTCTTAAATTATATCATGGATACAGTGAAAGATTCATCTAATGGTGCTATTTAC
GGAGCTGATTGTAGCAACATACTACTCAAAGACATTCTTTCTGTGAGAAAATACTGGTGTGAAATATCTCAGCAA
CAGTGGTTAGAATTGTTCTCTGTGTACTTCAGGCTCTATCTGAAACCTTCACAAGATGTTCATAGAGTTTTAGTG
GCTAGAATAATTCATGCTGTTACCAAAGGATGCTGTTCTCAGACTGACGGATTAAATTCCAAATTTTTGGACTTT
TTTTCCAAGGCTATTCAGTGTGCGAGACAAGAAAAGAGCTCTTCAGGTCTAAATCATATCTTAGCAGCTCTTACT
ATCTTCCTCAAGACTTTGGCTGTCAACTTTCGAATTCGAGTGTGTGAATTAGGAGATGAAATTCTTCCCACTTTG
CTTTATATTTGGACTCAACATAGGCTTAATGATTCTTTAAAAGAAGTCATTATTGAATTATTTCAACTGCAAATT
TATATCCATCATCCGAAAGGAGCCAAAACCCAAGAAAAAGGTGCTTATGAATCAACAAAATGGAGAAGTATTTTA
TACAACTTATATGATCTGCTAGTGAATGAGATAAGTCATATAGGAAGTAGAGGAAAGTATTCTTCAGGATTTCGT
AATATTGCCGTCAAAGAAAATTTGATTGAATTGATGGCAGATATCTGTCACCAGGTTTTTAATGAAGATACCAGA
TCCTTGGAGATTTCTCAATCTTACACTACTACACAAAGAGAATCTAGTGATTACAGTGTCCCTTGCAAAAGGAAG
AAAATAGAACTAGGCTGGGAAGTAATAAAAGATCACCTTCAGAAGTCACAGAATGATTTTGATCTTGTGCCTTGG
CTACAGATTGCAACCCAATTAATATCAAAGTATCCTGCAAGTTTACCTAACTGTGAGCTGTCTCCATTACTGATG
ATACTATCTCAGCTTCTACCCCAACAGCGACATGGGGAACGTACACCATATGTGTTACGATGCCTTACGGAAGTT
GCATTGTGTCAAGACAAGAGGTCAAACCTAGAAAGCTCACAAAAGTCAGATTTATTAAAACTCTGGAATAAAATT
TGGTGTATTACCTTTCGTGGTATAAGTTCTGAGCAAATACAAGCTGAAAACTTTGGCTTACTTGGAGCCATAATT
CAGGGTAGTTTAGTTGAGGTTGACAGAGAATTCTGGAAGTTATTTACTGGGTCAGCCTGCAGACCTTCATGTCCT
GCAGTATGCTGTTTGACTTTGGCACTGACCACCAGTATAGTTCCAGGAGCGGTAAAAATGGGAATAGAGCAAAAT
ATGTGTGAAGTAAATAGAAGCTTTTCTTTAAAGGAATCAATAATGAAATGGCTCTTATTCTATCAGTTAGAGGGT
GACTTAGAAAATAGCACAGAAGTGCCTCCAATTCTTCACAGTAATTTTCCTCATCTTGTACTGGAGAAAATTCTT
GTGAGTCTCACTATGAAAAACTGTAAAGCTGCAATGAATTTTTTCCAAAGCGTGCCAGAATGTGAACACCACCAA
AAAGATAAAGAAGAACTTTCATTCTCAGAAGTAGAAGAACTATTTCTTCAGACAACTTTTGACAAGATGGACTTT
TTAACCATTGTGAGAGAATGTGGTATAGAAAAGCACCAGTCCAGTATTGGCTTCTCTGTCCACCAGAATCTCAAG
GAATCACTGGATCGCTGTCTTCTGGGATTATCAGAACAGCTTCTGAATAATTACTCATCTGAGATTACAAATTCA
GAAACTCTTGTCCGGTGTTCACGTCTTTTGGTGGGTGTCCTTGGCTGCTACTGTTACATGGGTGTAATAGCTGAA
GAGGAAGCATATAAGTCAGAATTATTCCAGAAAGCCAACTCTCTAATGCAATGTGCAGGAGAAAGTATCACTCTG
TTTAAAAATAAGACAAATGAGGAATTCAGAATTGGTTCCTTGAGAAATATGATGCAGCTATGTACACGTTGCTTG
AGCAACTGTACCAAGAAGAGTCCAAATAAGATTGCATCTGGCTTTTTCCTGCGATTGTTAACATCAAAGCTAATG
AATGACATTGCAGATATTTGTAAAAGTTTAGCATCCTTCATCAAAAAGCCATTTGACCGTGGAGAAGTAGAATCA
ATGGAAGATGATACTAATGGAAATCTAATGGAGGTGGAGGATCAGTCATCCATGAATCTATTAACGATTACCCT
GATAGTAGTGTTAGTGATGCAAACGAACCTGGAGAGAGCCAAAGTACCATAGGTGCCATTAATCCTTTAGCTGAA
GAATATCTGTCAAAGCAAGATCTACTTTTCTTAGACATGCTCAAGTTCTTGTGTTTGTGTGTAACTACTGCTCAG
ACCAATACTGTGTCCTTTAGGGCAGCTGATATTCGGAGGAAATTGTTAATGTTAATTGATTCTAGCACGCTAGAA
CCTACCAAATCCCTCCACCTGCATATGTATCTAATGCTTTTAAAGGAGCTTCCTGGAGAAGAGTACCCCTTGCCA
ATGGAAGATGTTCTTGAACTTCTGAAACCACTATCCAATGTGTGTTCTTTGTATCGTCGTGACCAAGATGTTTGT
AAAACTATTTTAAACCATGTCCTTCATGTAGTGAAAAACCTAGGTCAAAGCAATATGGACTCTGAGAACACAAGG
GATGCTCAAGGACAGTTTCTTACAGTAATTGGAGCATTTTGGCATCTAACAAAGGAGAGGAAATATATATTCTCT
GTAAGAATGGCCCTAGTAAATTGCCTTAAAACTTTGCTTGAGGCTGATCCTTATTCAAAATGGGCCATTCTTAAT
GTAATGGGAAAAGACTTTCCTGTAAATGAAGTATTTACACAATTTCTTGCTGACAATCATCACCAAGTTCGCATG
TTGGCTGCAGAGTCAATCAATAGATTGTTCCAGGACACGAAGGGAGATTCTTCCAGGTTACTGAAAGCACTTCCT
TTGAAGCTTCAGCAAACAGCTTTTGAAAATGCATACTTGAAAGCTCAGGAAGGAATGAGAGAAATGTCCCATAGT

FIGURE 565B

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GCTGAGAACCCTGAAACTTTGGATGAAATTTATAATAGAAAATCTGTTTTACTGACGTTGATAGCTGTGGTTTTA
TCCTGTAGCCCTATCTGCGAAAAACAGGCTTTGTTTGCCCTGTGTAAATCTGTGAAAGAGAATGGATTAGAACCT
CACCTTGTGAAAAAGGTTTTAGAGAAAGTTTCTGAAACTTTTGGATATAGACGTTTAGAAGACTTTATGGCATCT
CATTTAGATTATCTGGTTTTGGAATGGCTAAATCTTCAAGATACTGAATACAACTTATCTTCTTTTCCTTTTATT
TTATTAAACTACACAAATATTGAGGATTTCTATAGATCTTGTTATAAGGTTTTGATTCCACATCTGGTGATTAGA
AGTCATTTTGATGAGGTGAAGTCCATTGCTAATCAGATTCAAGAGGACTGGAAAAGTCTTCTAACAGACTGCTTT
CCAAAGATTCTTGTAAATATTCTTCCTTATTTTGCCTATGAGGGTACCAGAGACAGTGGGATGGCACAGCAAAGA
GAGACTGCTACCAAGGTCTATGATATGCTTAAAAGTGAAAACTTATTGGGAAAACAGATTGATCACTTATTCATT
AGTAATTTACCAGAGATTGTGGTGGAGTTATTGATGACGTTACATGAGCCAGCAAATTCTAGTGCCAGTCAGAGC
ACTGACCTCTGTGACTTTTCAGGGGATTTGGATCCTGCTCCTAATCCACCTCATTTTCCATCGCATGTGATTAAA
GCAACATTTGCCTATATCAGCAATTGTCATAAAACCAAGTTAAAAAGCATTTTAGAAATTCTTTCCAAAAGCCCT
GATTCCTATCAGAAAATTCTTCTTGCCATATGTGAGCAAGCAGCTGAAACAAATAATGTTTATAAGAAGCACAGA
ATTCTTAAAATATATCACCTGTTTGTTAGTTTATTACTGAAAGATATAAAAAGTGGCTTAGGAGGAGCTTGGGCC
TTTGTTCTTCGAGACGTTATTTATACTTTGATTCACTATATCAACCAAAGGCCTTCTTGTATCATGGATGTGTCA
TTACGTAGCTTCTCCCTTTGTTGTGACTTATTAAGTCAGGTTTGCCAGACAGCCGTGACTTACTGTAAGGATGCT
CTAGAAAACCATCTTCATGTTATTGTTGGTACACTTATACCCCTTGTGTATGAGCAGGTGGAGGTTCAGAAACAG
GTATTGGACTTGTTGAAATACTTAGTGATAGATAACAAGGATAATGAAAACCTCTATATCACGATTAAGCTTTTA
GATCCTTTTCCTGACCATGTTGTTTTTAAGGATTTGCGTATTACTCAGCAAAAAATCAAATACAGTAGAGGACCC
TTTTCACTCTTGGAGGAAATTAACCATTTTCTCTCAGTAAGTGTTTATGATGCACTTCCATTGACAAGACTTGAA
GGACTAAAGGATCTTCGAAGACAACTGGAACTACATAAAGATCAGATGGTGGACATTATGAGAGCTTCTCAGGAT
AATCCGCAAGATGGGATTATGGTGAAACTAGTTGTCAATTTGTTGCAGTTATCCAAGATGGCAATAAACCACACT
GGTGAAAAAGAAGTTCTAGAGGCTGTTGGAAGCTGCTTGGGAGAAGTGGGTCCTATAGATTTCTCTACCATAGCT
ATACAACATAGTAAAGATGCATCTTATACCAAGGCCCTTAAGTTATTTGAAGATAAAGAACTTCAGTGGACCTTC
ATAATGCTGACCTACCTGAATAACACACTGGTAGAAGATTGTGTCAAAGTTCGATCAGCAGCTGTTACCTGTTTG
AAAAACATTTTAGCCACAAAGACTGGACATAGTTTCTGGGAGATTTATAAGATGACAACAGATCCAATGCTGGCC
TATCTACAGCCTTTTAGAACATCAAGAAAAAAGTTTTTAGAAGTACCCAGATTTGACAAAGAAAACCCTTTTGAA
GGCCTGGATGATATAAATCTGTGGATTCCTCTAAGTGAAAATCATGACATTTGGATAAAGACACTGACTTGTGCT
TTTTTGGACAGTGGAGGCACAAAATGTGAAATTCTTCAATTATTAAAGCCAATGTGTGAAGTGAAAACTGACTTT
TGTCAGACTGTACTTCCATACTTGATTCATGATATTTTACTCCAAGATACAAATGAATCATGGAGAAATCTGCTT
TCTACACATGTTCAGGGATTTTTTCACCAGCTGTCTTCGACACTTCTCGCAAACGAGCCGATCCACAACCCCTGCA
AACTTGGATTCAGAGTCAGAGCACTTTTTCCGATGCTGTTTGGATAAAAAATCACAAAGAACAATGCTTGCTGTT
GTGGACTACATGAGAAGACAAAAGAGACCTTCTTCAGGAACAATTTTTAATGATGCTTTCTGGCTGGATTAAAT
TATCTAGAAGTTGCCAAGGTAGCTCAGTCTTGTGCTGCTCACTTTACAGCTTTACTCTATGCAGAAATCTATGCA
GATAAGAAAAGTATGGATGATCAAGAGAAAAGAAGTCTTGCATTTGAAGAAGGAAGCCAGAGTACAACTATTTCT
AGCTTGAGTGAAAAAAGTAAAGAAGAAACTGGAATAAGTTTACAGGATCTTCTCTTAGAAATCTACAGAAGTATA
GGGGAGCCAGATAGTTTGTATGGCTGTGGTGGAGGGAAGATGTTACAACCCATTACTAGACTACGAACATATGAA
CACGAAGCAATGTGGGGCAAAGCCCTAGTAACATATGACCTCGAAACAGCAATCCCCTCATCAACACGCCAGGCA
GGAATCATTCAGGCCTTGCAGAATTTGGGACTCTGCCATATTCTTTCCGTCTATTTAAAGGATTGGATTATGAA
AATAAAGACTGGTGTCCTGAACTAGAAGAACTTCATTACCAAGCAGCATGGAGGAATATGCAGTGGGACCATTGC
ACTTCCGTCAGCAAAGAAGTAGAAGGAACCAGTTACCATGAATCATTGTACAATGCTCTACAATCTCTAAGAGAC
AGAGAATTCTCTACATTTTATGAAAGTCTCAAATATGCCAGAGTAAAAGAAGTGGAAGAGATGTGTAAGCGCAGC
CTTGAGTCTGTGTATTCGCTCTATCCCACACTTAGCAGGTTGCAGGCCATTGGAGAGCTGGAAAGCATTGGGGAG
CTTTTCTCAAGATCAGTCACACATAGACAACTCTCTGAAGTATATATTAAGTGGCAGAAACACTCCCAGCTTCTC
AAGGACAGTGATTTTAGTTTTCAGGAGCCTATCATGGCTCTACGCACAGTCATTTGGAGATCCTGATGGAAAAG
GAAATGGACAACTCACAAAGAGAATGTATTAAGGACATTCTCACCAAACACCTTGTAGAACTCTCTATACTGGCC
AGAACTTTCAAGAACACTCAGCTCCCTGAAAGGGCAATATTTCAAATTAAACAGTACAATTCAGTTAGCTGTGGA
GTCTCTGAGTGGCAGCTGGAAGAAGCACAAGTATTCTGGGCAAAAAAGGAGCAGAGTCTTGCCCTGAGTATTCTC
AAGCAAATGATCAAGAAGTTGGATGCCAGCTGTGCAGCGAACAATCCCAGCCTAAAACTTACATACACAGAATGT
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FIGURE 565C

CTGAGGGTTTGTGGCAACTGGTTAGCAGAAACGTGCTTAGAAAATCCTGCGGTCATCATGCAGACCTATCTAGAA
AAGGCAGTAGAAGTTGCTGGAAATTATGATGGAGAAAGTAGTGATGAGCTAAGAAATGGAAAAATGAAGGCATTT
CTCTCATTAGCCCGGTTTTCAGATACTCAATACCAAAGAATTGAAAACTACATGAAATCATCGGAATTTGAAAAC
AAGCAAGCTCTCCTGAAAAGAGCCAAAGAGGAAGTAGGTCTCCTTAGGGAACATAAAATTCAGACAAACAGATAC
ACAGTAAAGGTTCAGCGAGAGCTGGAGTTGGATGAATTAGCCCTGCGTGCACTGAAAGAGGATCGTAAACGCTTC
TTATGTAAAGCAGTTGAAAATTATATCAACTGCTTATTAAGTGGAGAAGAACATGATATGTGGGTATTCCGGCTT
TGTTCCCTCTGGCTTGAAAATTCTGGAGTTTCTGAAGTCAATGGCATGATGAAGAGAGACGGAATGAAGATTCCA
ACATATAAATTTTTGCCTCTTATGTACCAATTGGCTGCTAGAATGGGGACCAAGATGATGGGAGGCCTAGGATTT
CATGAAGTCCTCAATAATCTAATCTCTAGAATTTCAATGGATCACCCCCATCACACTTTGTTTATTATACTGGCC
TTAGCAAATGCAAACAGAGATGAATTTCTGACTAAACCAGAGGTAGCCAGAAGAAGCAGAATAACTAAAAATGTG
CCTAAACAAAGCTCTCAGCTTGATGAGGATCGAACAGAGGCTGCAAATAGAATAATATGTACTATCAGAAGTAGG
AGACCTCAGATGGTCAGAAGTGTTGAGGCACTTTGTGATGCTTATATTATATTAGCAAACTTAGATGCCACTCAG
TGGAAGACTCAGAGAAAAGGCATAAATATTCCAGCAGACCAGCCAATTACTAAACTTAAGAATTTAGAAGATGTT
GTTGTCCCTACTATGGAAATTAAGGTGGACCACACAGGAGAATATGGAAATCTGGTGACTATACAGTCATTTAAA
GCAGAATTTCGCTTAGCAGGAGGTGTAAATTTACCAAAAATAATAGATTGTGTAGGTTCCGATGGCAAGGAGAGG
AGACAGCTTGTTAAGGGCCGTGATGACCTGAGACAAGATGCTGTCATGCAACAGGTCTTCCAGATGTGTAATACA
TTACTGCAGAGAAACACGGAAACTAGGAAGAGGAAATTAACTATCTGTACTTATAAGGTGGTTCCCCTCTCTCAG
CGAAGTGGTGTTCTTGAATGGTGCACAGGAACTGTCCCCATTGGTGAATTTCTTGTTAACAATGAAGATGGTGCT
CATAAAAGATACAGGCCAAATGATTTCAGTGCCTTTCAGTGCCAAAAGAAAATGATGGAGGTGCAAAAAAAGTCT
TTTGAAGAGAAATATGAAGTCTTCATGGATGTTTGCCAAAATTTTCAACCAGTTTTCCGTTACTTCTGCATGGAA
AAATTCTTGGATCCAGCTATTTGGTTTGAGAAGCGATTGGCTTATACGCGCAGTGTAGCTACTTCTTCTATTGTT
GGTTACATACTTGGACTTGGTGATAGACATGTACAGAATATCTTGATAAATGAGCAGTCAGCAGAACTTGTACAT
ATAGATCTAGGTGTTGCTTTTGAACAGGGCAAAATCCTTCCTACTCCTGAGACAGTTCCTTTTAGACTCACCAGA
GATATTGTGGATGGCATGGGCATTACGGGTGTTGAAGGTGTCTTCAGAAGATGCTGTGAGAAAACCATGGAAGTG
ATGAGAAACTCTCAGGAAACTCTGTTAACCATTGTAGAGGTCCTTCTATATGATCCACTCTTTGACTGGACCATG
AATCCTTTGAAAGCTTTGTATTTACAGCAGAGGCCGGAAGATGAAACTGAGCTTCACCCTACTCTGAATGCAGAT
GACCAAGAATGCAAACGAAATCTCAGTGATATTGACCAGAGTTTCAACAAAGTAGCTGAACGTGTCTTAATGAGA
CTACAAGAGAAACTGAAAGGAGTGGAAGAAGGCACTGTGCTCAGTGTTGGTGGACAAGTGAATTTGCTCATACAG
CAGGCCATAGACCCCAAAAATCTCAGCCGACTTTTCCCAGGATGGAAAGCTTGGGTGTGATCTTCAGTATATGAA
TTACCCTTTCATTCAGCCTTTAGAAATTATATTTTAGCCTTTATTTTTAACCTGCCAACATACTTTAAGTAGGGA
TTAATATTTAAGTGAACTATTGTGGGTTTTTTTGAATGTTGGTTTTAATACTTGATTTAATCACCACTCAAAAAT
GTTTTGATGGTCTTAAGGAACATCTCTGCTTTCACTCTTTAGAAATAATGGTCATTCGGGCTGGGCGCAGCGGCT
CACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGTGAGCGGATCACAAGGTCAGGAGTTCGAGACCAGCCTGGC
CAAGAGACCAGCCTGGCCAGTATGGTGAAACCCTGTCTCTACTAAAAATACAAAAATTAGCCGAGCATGGTGGCG
GGCACCTGTAGTCCCAGCTACTCGAGAGGCTGAGGCAGGAGAATCTCTTGAACCTGGGAGGTGAAGGTTGCTGTG
GGCCAAAATCATGCCATTGCACTCCAGCCTGGGTGACAAGAGCGAAACTCCATCTCAAAAA

FIGURE 566

MTLHEPANSSASQSTDLCDFSGDLDPAPNPPHFPSHVIKATFAYISNCHKTKLKSILEILSKSPDSYQKILLAIC
EQAAETNNVYKKHRILKIYHLFVSLLLKDIKSGLGGAWAFVLRDVIYTLIHYINQRPSCIMDVSLRSFSLCCDLL
SQVCQTAVTYCKDALENHLHVIVGTLIPLVYEQVEVQKQVLDLLKYLVIDNKDNENLYITIKLLDPFPDHVVFKD
LRITQQKIKYSRGPFSLLEEINHFLSVSVYDALPLTRLEGLKDLRRQLELHKDQMVDIMRASQDNPQDGIMVKLV
VNLLQLSKMAINHTGEKEVLEAVGSCLGEVGPIDFSTIAIQHSKDASYTKALKLFEDKELQWTFIMLTYLNNTLV
EDCVKVRSAAVTCLKNILATKTGHSFWEIYKMTTDPMLAYLQPFRTSRKKFLEVPRFDKENPFEGLDDINLWIPL
SENHDIWIKTLTCAFLDSGGTKCEILQLLKPMCEVKTDFCQTVLPYLIHDILLQDTNESWRNLLSTHVQGFFTSC
LRHFSQTSRSTTPANLDSESEHFFRCCLDKKSQRTMLAVVDYMRRQKRPSSGTIFNDAFWLDLNYLEVAKVAQSC
AAHFTALLYAEIYADKKSMDDQEKRSLAFEEGSQSTTISSLSEKSKEETGISLQDLLLEIYRSIGEPDSLYGCGG
GKMLQPITRLRTYEHEAMWGKALVTYDLETAIPSSTRQAGIIQALQNLGLCHILSVYLKGLDYENKDWCPELEEL
HYQAAWRNMQWDHCTSVSKEVEGTSYHESLYNALQSLRDREFSTFYESLKYARVKEVEEMCKRSLESVYSLYPTL
SRLQAIGELESIGELFSRSVTHRQLSEVYIKWQKHSQLLKDSDFSFQEPIMALRTVILEILMEKEMDNSQRECIK
DILTKHLVELSILARTFKNTQLPERAIFQIKQYNSVSCGVSEWQLEEAQVFWAKKEQSLALSILKQMIKKLDASC
AANNPSLKLTYTECLRVCGNWLAETCLENPAVIMQTYLEKAVEVAGNYDGESSDELRNGKMKAFLSLARFSDTQY
QRIENYMKSSEFENKQALLKRAKEEVGLLREHKIQTNRYTVKVQRELELDELALRALKEDRKRFLCKAVENYINC
LLSGEEHDMWVFRLCSLWLENSGVSEVNGMMKRDGMKIPTYKFLPLMYQLAARMGTKMMGGLGFHEVLNNLISRI
SMDHPHHTLFIILALANANRDEFLTKPEVARRSRITKNVPKQSSQLDEDRTEAANRIICTIRSRRPQMVRSVEAL
CDAYIILANLDATQWKTQRKGINIPADQPITKLKNLEDVVVPTMEIKVDHTGEYGNLVTIQSFKAEFRLAGGVNL
PKIIDCVGSDGKERRQLVKGRDDLRQDAVMQQVFQMCNTLLQRNTETRKRKLTICTYKVVPLSQRSGVLEWCTGT
VPIGEFLVNNEDGAHKRYRPNDFSAFQCQKKMMEVQKKSFEEKYEVFMDVCQNFQPVFRYFCMEKFLDPAIWFEK
RLAYTRSVATSSIVGYILGLGDRHVQNILINEQSAELVHIDLGVAFEQGKILPTPETVPFRLTRDIVDGMGITGV
EGVFRRCCEKTMEVMRNSQETLLTIVEVLLYDPLFDWTMNPLKALYLQQRPEDETELHPTLNADDQECKRNLSDI
DQSFNKVAERVLMRLQEKLKGVEEGTVLSVGGQVNLLIQQAIDPKNLSRLFPGWKAWV

FIGURE 567

CGCGCCTCGGGCGGTACCCAGCCAGTCCCCAGCGCCGCGCTACCGCGCTGACCGGCCCTCCAGACGCCTCCCGGT
ACCCGGGACCCCAGCCCGGCCGCTCGCCCGCAGCCCGCCGGCCGCACACGTCCCCGGAGCCGGGCCTAGGGCGGG
CGGCAGCGGCGGCTCGGCGCAGTCAGGCTGGGCTCTGTAGCGTCCCC**ATG**GCCGCGGCCGGCTGGCGGGACGGCT
CCGGCCAGGAGAAGTACCGGCTCGTGGTGGTCGGCGGGGGCGGCGTGGGCAAGTCGGCGCTCACCATCCAGTTCA
TCCAGTCCTATTTTGTAACGGATTATGATCCAACCATTGAAGATTCTTACACAAAGCAGTGTGTGATAGATGACA
GAGCAGCCCGGCTAGATATTTTGGATACAGCAGGACAAGAAGAGTTTGGAGCCATGAGAGAACAGTATATGAGGA
CTGGCGAAGGCTTCCTGTTGGTCTTTTCAGTCACAGATAGAGGCAGTTTTGAAGAAATCTATAAGTTTCAAAGAC
AGATTCTCAGAGTAAAGGATCGTGATGAGTTCCCAATGATTTTAATTGGTAATAAAGCAGATCTGGATCATCAAA
GACAGGTAACACAGGAAGAAGGACAACAGTTAGCACGGCAGCTTAAGGTAACATACATGGAGGCATCAGCAAAGA
TTAGGATGAATGTAGATCAAGCTTTCCATGAACTTGTCCGGGTTATCAGGAAATTTCAAGAGCAGGAATGTCCTC
CTTCACCAGAACCAACACGGAAAGAAAAAGACAAGAAAGGCTGCCATTGTGTCATTTTC**TAG**AATCCCTTCAGTT
TTAGCTACCAACGGCCAGGAAAAGCCCTCATCTTCTCTTTCTCTCCTCAGTTTACATCTTGTTGGTACCTTTCTA
GCCTTAGACAAATGATCACCATGTTAGCCTTAGACCAAGAAGCTGGCTAGTCCTTTCTGTGAAGCTAATACAATG
GTCATTTCCAGACAAATTTAAAGGAAACACTAAGGCTGCTTCAAAGATTATCTGATTCCTTTAAAATATATGTCT
ATATACACAGACATGCTCTTTTTTTAAGTGCTTACATTTAATAGAGATGAATCAGTTTTGGAATCTAAGCTGTT
TGCCAAGCTGAAGCTACAGGTTGTGAAATAATTTTTAACTTTTGGAATCATACTGCCTACTGTTACTCTAAATAG
AAATATAGGGTTTTTTTTAATGTGAATTTTTGCCTATCTTTAAACATTTCAATGTCAGCCTTTGTTAACCTTAAA
TACACTGAATTGAATCTACAAAGTGAACCATCTCAGACCTTTACTGATACTACAACTTTTGTTTTCTGATGGCC
AAAATACCAAATGCCTGTTGTATTTATGGATTAAAAACTGCTTATAAAAAAAAAAAAAAA

FIGURE 568

MAAAGWRDGSGQEKYRLVVVGGGGVGKSALTIQFIQSYFVTDYDPTIEDSYTKQCVIDDRAARLDILDTAGQEEF
GAMREQYMRTGEGFLLVFSVTDRGSFEEIYKFQRQILRVKDRDEFPMILIGNKADLDHQRQVTQEEGQQLARQLK
VTYMEASAKIRMNVDQAFHELVRVIRKFQEQECPPSPEPTRKEKDKKGCHCVIF

FIGURE 569

AAAATGTGCTTCTTACAGGAATATAAATAGTTTCTGGAAAGGACACTGACAACTTCAAAGCAAA**ATG**AAGTTCTT
TCTGTTGCTTTTCACCATTGGGTTCTGCTGGGCTCAGTATTCCCCAAATACACAACAAGGACGGACATCTATTGT
TCATCTGTTTGAATGGCGATGGGTTGATATTGCTCTTGAATGTGAGCGATATTTAGCTCCGAAGGGATTTGGAGG
GGTTCAGGTCTCTCCACCAAATGAAAATGTTGCAATTTACAACCCTTTCAGACCTTGGTGGGAAAGATACCAACC
AGTTAGCTATAAATTATGCACAAGATCTGGAAATGAAGATGAATTTAGAAACATGGTGACTAGATGTAACAATGT
TGGGGTTCGTATTTATGTGGATGCTGTAATTAATCATATGTGTGGTAACGCTGTGAGTGCAGGAACAAGCAGTAC
CTGTGGAAGTTACTTCAACCCTGGAAGTAGGGACTTTCCAGCAGTCCCATATTCTGGATGGGATTTCAATGATGG
TAAATGTAAAACTGGAAGTGGAGATATCGAGAACTACAATGATGCTACTCAGGTCAGAGATTGTCGTCTGACTGG
TCTTCTTGATCTTGCACTGGAGAAGGATTACGTGCGTTCTAAGATTGCCGAATATATGAACCATCTCATTGACAT
TGGTGTTGCAGGGTTCAGACTTGATGCTTCCAAGCACATGTGGCCTGGAGACATAAAGGCAATTTTGGACAAACT
GCATAATCTAAACAGTAACTGGTTCCCTGCAGGAAGTAAACCTTTCATTTACCAGGAGGTAATTGATCTGGGTGG
TGAGCCAATTAAAAGCAGTGACTACTTTGGTAATGGCCGGGTGACAGAATTCAAGTATGGTGCAAAACTCGGCAC
AGTTATTCGCAAGTGGAATGGAGAGAAGATGTCTTACTTAAAGAACTGGGGAGAAGGTTGGGGTTTCGTACCTTC
TGACAGAGCGCTTGTCTTTGTGGATAACCATGACAATCAACGAGGACATGGGGCTGGAGGAGCCTCTATTCTTAC
CTTCTGGGATGCTAGGCTGTACAAAATGGCAGTTGGATTTATGCTTGCTCATCCTTACGGATTTACACGAGTAAT
GTCAAGCTACCGTTGGCCAAGACAGTTTCAAAATGGAAACGATGTTAATGATTGGGTTGGGCCACCAAATAATAA
TGGAGTAATTAAAGAAGTTACTATTAATCCAGACACTACTTGTGGCAATGACTGGGTCTGTGAACATCGATGGCG
CCAAATAAGGAACATGGTTATTTTCCGCAATGTAGTGGATGGCCAGCCTTTTACAAATTGGTATGATAATGGGAG
CAACCAAGTGGCTTTTGGGAGAGGAAACAGAGGATTCATTGTTTTCAACAATGATGACTGGTCATTTTCTTTAAC
TTTGCAAACTGGTCTTCCTGCTGGCACATACTGTGATGTCATTTCTGGAGATAAAATTAATGGCAATTGCACAGG
CATTAAAATTTACGTTTCTGATGATGGCAAAGCTCATTTTTCTATTAGTAACTCTGCTGAAGATCCATTTATTGC
AATTCATGCTGAATCTAAATTG**TAA**AATTTAAAATTAAATGCATGTCCTCAAAACAAAAAAAAAAAAAAAAAAAA
AAAAAAAAA

FIGURE 570

MKFFLLLFTIGFCWAQYSPNTQQGRTSIVHLFEWRWVDIALECERYLAPKGFGGVQVSPPNENVAIYNPFRPWWE
RYQPVSYKLCTRSGNEDEFRNMVTRCNNVGVRIYVDAVINHMCGNAVSAGTSSTCGSYFNPGSRDFPAVPYSGWD
FNDGKCKTGSGDIENYNDATQVRDCRLTGLLDLALEKDYVRSKIAEYMNHLIDIGVAGFRLDASKHMWPGDIKAI
LDKLHNLNSNWFPAGSKPFIYQEVIDLGGEPIKSSDYFGNGRVTEFKYGAKLGTVIRKWNGEKMSYLKNWGEGWG
FVPSDRALVFVDNHDNQRGHGAGGASILTFWDARLYKMAVGFMLAHPYGFTRVMSSYRWPRQFQNGNDVNDWVGP
PNNNGVIKEVTINPDTTCGNDWVCEHRWRQIRNMVIFRNVVDGQPFTNWYDNGSNQVAFGRGNRGFIVFNNDDWS
FSLTLQTGLPAGTYCDVISGDKINGNCTGIKIYVSDDGKAHFSISNSAEDPFIAIHAESKL

FIGURE 571A

TCTAGATGGGGGTCCTGGGCCCCAGGGTGTGCAGCCACTGACTTGGGGACTGCTGGTGGGGTAGGGATGAGGGAG
GGAGGGGCATTGTGATGTACAGGGCTGCTCTGTGAGATCAAGGGTCTCTTAAGGGTGGGAGCTGGGGCAGGGACT
ACGAGAGCAGCCAGATGGGCTGAAAGTGGAACTCAAGGGGTTTCTGGCACCTACCTACCTGCTTCCCGCTGGGGG
GTGGGGAGTTGGCCCAGAGTCTTAAGATTGGGGCAGGGTGGAGAGGTGGGCTCTTCCTGCTTCCCACTCATCTTA
TAGCTTTCTTTCCCCAGATCCGAATTCGAGATCCAAACCAAGGAGGAAAGGATATCACAGAGGAGATC**ATG**TCTG
GGGCCCGCACTGCCTCCACACCCACCCCTCCCCAGACGGGAGGCAGTCTGGAGCCTCAAGCTAATGGGGAGACGC
CCCAGGTTGCTGTCATTGTCCGGCCAGATGACCGGTCACAGGGAGCAATCATTGCTGACCGGCCAGGGCTGCCTG
GCCCAGAGCATAGCCCTTCAGAATCCCAGCCTTCGTCGCCTTCTCCGACCCCATCACCATCCCCAGTCTTGGAAC
CGGGGTCTGAGCCTAATCTCGCAGTCCTCTCTATTCCTGGGGACACTATGACAACTATACAAATGTCTGTAGAAG
AATCAACCCCCATCTCCCGTGAAACTGGGGAGCCATATCGCCTCTCTCCAGAACCCACTCCTCTCGCCGAACCCA
TACTGGAAGTAGAAGTGACACTTAGCAAACCGGTTCCAGAATCTGAGTTTTCTTCCAGTCCTCTCCAGGCTCCCA
CCCCTTTGGCATCTCACACAGTGGAAATTCATGAGCCTAATGGCATGGTCCCATCTGAAGATCTGGAACCAGAGG
TGGAGTCAAGCCCAGAGCTTGCTCCTCCCCCAGCTTGCCCCTCCGAATCCCTGTGCCCATTGCTCCAACTGCCC
AACCTGAGGAACTGCTCAACGGAGCCCCCTCGCCACCAGCTGTGGACTTAAGCCCAGTCAGTGAGCCAGAGGAGC
AGGCCAAGGAGGTGACAGCATCAGTGGCGCCCCCCACCATCCCCTCTGCTACTCCAGCTACGGCTCCTTCAGCTA
CTTCCCCAGCTCAGGAGGAGGAAATGGAAGAAGAAGAAGATGAGGAAGAAGGAGAAGTAGGGGAAGCAGGGGAAG
GTGAGAGTGAGAAGAGAGGAGAGGAACTGCTCCCCCCAGAGAGTACCCCTATTCCAGCCAACTTGTCTCAGAATT
TGGAGGCAGCAGCAGCCACTCAAGTGGCAGTATCTGTGCCAAAGAGGAGACGGAAAATTAAGGAGCTAAATAAGA
AGGAGGCTGTTGGAGACCTTCTGGATGCCTTCAAGGAGGCGAACCCGGCAGTACCAGAGGTGGAAAATCAGCCTC
CTGCAGGCAGCAATCCAGGCCCAGAGTCTGAGGGCAGTGGTGTGCCCCCACGTCCTGAGGAAGCAGATGAGACCT
GGGACTCAAAGGAAGACAAAATTCACAATGCTGAGAACATCCAGCCCGGGGAACAGAAGTATGAATATAAGTCAG
ATCAGTGGAAGCCTCCAAACCTAGAGGAGAAAAAACGTTACGACCGTGAGTTCCTGCTTGGTTTTCAGTTCATCT
TTTGCCAGATGCAGAAGCCAGAGGGATTGCCACATATCAGTGACGTGGTGCTGGACAAGGCCAATAAAACACCAC
TGCGGCCACTGGATCCCACTAGACTACAAGGCATAAATTGTGGCCCAGACTTCACTCCATCCTTTGCCAACCTTG
GCCGGACAACCCTTAGCACCCGTGGGCCCCCAAGGGGTGGGCCAGGTGGGGAGCTCGCCCGTGGCGCGCAGGCTG
GCCTGGGACCCCGGCGCTCTCAGCAGGGACCCCGAAAAGAACCACGCAAGATCATTGCCACAGTGTTAATGACCG
AAGATATAAAACTGAACAAAGCAGAGAAAGCCTGGAAACCCAGCAGCAAGCGGACAGCGGCTGATAAGGATCGAG
GGGAAGAAGATGCTGATGGCAGCAAAACCCAGGACCTATTCCGCAGGTGGCGCTCCATCCTGAATAAACTGACAC
CCCAGATGTTCCAGCAGCTGATGAAGCAAGTGACGCAGCTGGCCATCGACACCGAGGACGCCTCAAAGGGGTCAT
TGACCTCATTTTTGAGAAGGCCATTTCAGAGCCCAACTTCTCTGTGGCCTATCCAACATGTGCCGCTGCCTCATG
GCGCTGAAAGTGCCCACTACGGAAAGCCAACAGTGACTGTGAACTTCCGAAAGCTGTTGTTGAATCGATGTCAGA
AGGAGTTTGAGAAAGACAAAGATGATGATGAGGTTTTTGAGAAGAAGCAAAAAGAGATGGATGAAGCTGCTACGG
CAGAGGAACGAGAACGCCTGAAGGAGGAGCTGGAAGAGGCTCGGGACATAGCCCGGCGCTGCTCTTTAGGGAATA
TCAAGTTTATTGGAGAGTTGTTCAAACTGAAGATGTTAACAGAGGCAATAATGCATGACTGTGTGGTCAAACTGC
TTAAGAACCATGATGAAGAGTCCCTTGAGTGCCTTTGTCGTCTGCTCACCACCATTGGCAAAGACCTGGACTTTG
AAAAAGCCAAGCCCCGAATGGATCAGTATTTCAACCAGATGGAAAAAATCATTAAAGAAAAGAAGACGTCATCCC
GCATCCGCTTTATGCTGCAGGACGTGCTGGATCTGCGAGGGAGCAATTGGGTGCCACGCCGAGGGGATCAGGGTC
CAAGACCATTGACCAGATCCATAAGGAGGCTGAGATGGAAGACATCGAGAGCACATCAAAGTGCAGCAGCTCATG
CAAGGGCAGTGACAAGCGTCGGGGCGGTCCTCCAGGCCCTCCCATCAGCCGTGGACTTCCCCTTGTGGATGATGG
TGGCTGACACAGTTCCCATCAGCAAAGGTAGCCGCCCCATTGACACCTCACGACTCACCAAGATCACCAAGCCTG
GCTCCATCGATTCTAACAACCAGCTCTTTGCACCTGGAGGGCGACTGAGCTGGGGCAAGGGCAGCAGCGGAGGGT
CAGGAGCCCAGCCCTCAGACGCAGCATCAGAAGCTGCTCGCCCAGCTACTAGTACTTTGATTCGCTTCTCAGCCC
TTCAACAAGCGGTACCCACAGAAAGCACAGATAATAGACGTGTGGTGCAGAGGAGTAGCTTGAGCCGAGAACGAG
GCGAGAAAGCTGGAGACCGAGGAGACCGCCTAGAGCGAGTGAACGGGGAGGGGACCGTGGGGACCGGCTTGATCG
TGTCGCGGACACCTGCTACCAAGCGGACGTTCAGCAAGGAAGTGGAGGAGCGGAGTAGAGAACGGCCCTCCCAGC
CTGAGGGGCTGCGCAAGGCAGCTAGCCTCACGGAGGATCGGGACCGTGGGCGGGATGCCGTGAAGCGAGAAGCTG
CCCTACCCCCAGTGAGCCCCCTGAAGGCGGCTCTCTCTGAGGAGGAGTTAGAGAAGAAATCCAAGGCTATCATTG
AGGAATATCTCCATCTCAATGACATGAAAGAGGCAGTCCAGTGCGTGCAGGAGCTGGCCTCACCCTCCTTGCTCT

FIGURE 571B

TCATCTTTGTACGGCATGGTGTCGAGTCTACGCTGGAGCGCAGTGCCATTGCTCGTGAGCATATGGGGCAGCTGC
TGCACCAGCTGCTCTGTGCTGGGCATCTGTCTACTGCTCAGTACTACCAAGGGTTGTATGAAATCTTGGAATTGG
CTGAGGACATGGAAATTGACATCCCCCACGTGTGGCTCTACCTAGCGGAACTGGTAACACCCATTCTGCAGGAAG
GTGGGGTGCCCATGGGGGAGCTGTTCAGGGAGATTACAAAGCCTCTGAGACCGTTGGGCAAAGCTGCTTCCCTGT
TGCTGGAGATCCTGGGCCTCCTGTGCAAAAGCATGGGTCCTAAAAAGGTGGGGACGCTGTGGCGAGAAGCCGGGC
TTAGCTGGAAGGAATTTCTACCTGAAGGCCAGGACATTGGTGCATTCGTCGCTGAACAGAAGGTGGAGTATACCC
TGGGAGAGGAGTCGGAAGCCCCTGGCCAGAGGGCACTCCCCTCCGAGGAGCTGAACAGGCAGCTGGAGAAGCTGC
TGAAGGAGGGCAGCAGTAACCAGCGGGTGTTCGACTGGATAGAGGCCAACCTGAGTGAGCAGATAGTATCCAACA
CGTTAGTTCGAGCCCTCATGACGGCTGTCTGCTATTCTGCAATTATTTTTGAGACTCCCCTCCGAGTGGACGTTG
CAGTGCTGAAAGGCGACATAGTGCTGCAGAAATACCTGTGTGACGAAGCAGAAGGAGCTACAGGCGCTCTACGCC
TCCAGGCCCTTGTAGTGACCTTAGAACAGCCTCCCAACCTGCTGCGGATGTTCTTTGACGCACTGTATGACGAGG
ACGTGGTGAAGGAGGATGCCTTCTACAGTTGGGAGAGTAGCAAGGACCCCGCTGAGCAGCAGGGCAAGGGTGTGG
CCCTTAAATCTGTCACAGCCTTCTTCAAGTGGCTCCGTGAAGTCAGAGGAGGAGTC**TGA**CCACAACTGAGGGCTG
GTGGGGCCGGGGACCTGGAGCCCCATGGACACACAGATGGCTCCGGCTAGCCGCCTGGACTGCAGGGGGGCGGCA
GCAGCGGCGGTGGCAGTGGGTGCCTGTAGTGTGATGTGTCTGAACTAATAAAGTGGCTGAAGAGGCAGGATGGCT
TGGGGCTGCCTGGGCCCCCCTCCAGGATGCCGCCAGGTGTCCCTCTCCTCCCCTGGGGCACAGAGATATATTATA
TATAAAGTCTTGAAAATTTTGAAATTTGGTGTGTCTTGGGGTGGGGAGGGGCACCAACGCCTGCCCCTGGGGTCC
TTTTTTTTATTTTCTGAAAATCACTCTCGGACTGCCGTCCTCGCTGCTGGGCATATGCCCCAGCCCCTGTACCAC
CCCTGCTGTTGCCTGGGCAGGGGGAAGGGGGGGCACGGTGCCTGTAATTATTAAACATGAATTCAATT

FIGURE 572

MSGARTASTPTPPQTGGSLEPQANGETPQVAVIVRPDDRSQGAIIADRPGLPGPEHSPSESQPSSPSPTPSPSPV
LEPGSEPNLAVLSIPGDTMTTIQMSVEESTPISRETGEPYRLSPEPTPLAEPILEVEVTLSKPVPESEFSSSPLQ
APTPLASHTVEIHEPNGMVPSEDLEPEVESSPELAPPPACPSESPVPIAPTAQPEELLNGAPSPPAVDLSPVSEP
EEQAKEVTASVAPPTIPSATPATAPSATSPAQEEEMEEEEDEEEGEVGEAGEGESEKRGEELLPPESTPIPANLS
QNLEAAAATQVAVSVPKRRRKIKELNKKEAVGDLLDAFKEANPAVPEVENQPPAGSNPGPESEGSGVPPRPEEAD
ETWDSKEDKIHNAENIQPGEQKYEYKSDQWKPPNLEEKKRYDREFLLGFQFIFCQMQKPEGLPHISDVVLDKANK
TPLRPLDPTRLQGINCGPDFTPSFANLGRTTLSTRGPPRGGPGGELARGAQAGLGPRRSQQGPRKEPRKIIATVL
MTEDIKLNKAEKAWKPSSKRTAADKDRGEEDADGSKTQDLFRRWRSILNKLTPQMFQQLMKQVTQLAIDTEDASK
GSLTSFLRRPFQSPTSLWPIQHVPLPHGAESAHYGKPTVTVNFRKLLLNRCQKEFEKDKDDDEVFEKKQKEMDEA
ATAEERERLKEELEEARDIARRCSLGNIKFIGELFKLKMLTEAIMHDCVVKLLKNHDEESLECLCRLLTTIGKDL
DFEKAKPRMDQYFNQMEKIIKEKKTSSRIRFMLQDVLDLRGSNWVPRRGDQGPRPLTRSIRRLRWKTSRAHQSAA
AHARAVTSVGAVLQALPSAVDFPLWMMVADTVPISKGSRPIDTSRLTKITKPGSIDSNNQLFAPGGRLSWGKGSS
GGSGAQPSDAASEAARPATSTLIRFSALQQAVPTESTDNRRVVQRSSLSRERGEKAGDRGDRLERVNGEGTVGTG
LIVSRTPATKRTFSKEVEERSRERPSQPEGLRKAASLTEDRDRGRDAVKREAALPPVSPLKAALSEEELEKKSKA
IIEEYLHLNDMKEAVQCVQELASPSLLFIFVRHGVESTLERSAIAREHMGQLLHQLLCAGHLSTAQYYQGLYEIL
ELAEDMEIDIPHVWLYLAELVTPILQEGGVPMGELFREITKPLRPLGKAASLLLEILGLLCKSMGPKKVGTLWRE
AGLSWKEFLPEGQDIGAFVAEQKVEYTLGEESEAPGQRALPSEELNRQLEKLLKEGSSNQRVFDWIEANLSEQIV
SNTLVRALMTAVCYSAIIFETPLRVDVAVLKGDIVLQKYLCDEAEGATGALRLQALVVTLEQPPNLLRMFFDALY
DEDVVKEDAFYSWESSKDPAEQQGKGVALKSVTAFFKWLREVRGGV

FIGURE 573

GGTAAGAGAAGACTGGAAGC**ATG**TCGGAGTTTTGGTTAATTTCTGCCCCTGGCGATAAGGAAAATTTGCAAGCTC
TGGAGAGGATGAATACTGTAACCTCCAAGTCCAACCTGTCTTATAATACCAAATTCGCTATTCCTGACTTCAAGG
TGGGGACCTTGGATTCCCTGGTTGGCCTCTCTGATGAGTTGGGGAAACTCGACACCTTTGCTGAAAGCCTCATAA
GGAGAATGGCTCAGAGCGTGGTGGAAGTCATGGAGGACTCAAAGGGGAAGGTCCAGGAGCACCTCCTGGCAAACG
GAGTTGACTTAACATCCTTTGTGACCCACTTTGAATGGGACATGGCCAAATATCCTGTCAAGCAGCCGCTCGTGA
GTGTGGTGGACACAATAGCCAAGCAACTGGCGCAGATCGAGATGGACCTGAAGTCCCGAACGGCCGCCTACGACA
CTCTGAAGACAAACCTGGAGAACCTGGAAAAGAAATCCATGGGGAACCTCTTCACCCGGACACTGAGTGATATTG
TGAGCAAAGAGGACTTCGTGCTGGATTCTGAATATCTCGTCACACTTCTGGTCATCGTCCCCAAACCAAACTACT
CACAATGGCAAAAAACCTACGAATCTCTCTCAGACATGGTGGTCCCTCGATCAACCAAACTCATTACTGAGGACA
AGGAAGGGGGCCTTTTCACTGTGACTCTGTTTCGAAAAGTGATTGAAGATTTCAAAACCAAGGCCAAAGAAAACA
AGTTCACTGTTCGTGAATTTTACTATGATGAGAAGGAAATTGAAAGGGAAAGGGAGGAGATGGCCAGATTGCTGT
CTGATAAGAAGCAACAGTATGGCCCCCTGCTGCGCTGGCTCAAGGTGAACTTCAGTGAAGCCTTCATTGCCTGGA
TCCACATCAAGGCCCTGAGAGTGTTTGTGGAGTCCGTGCTCAGGTATGGACTACCAGTGAACTTCCAGGCAGTGC
TCCTGCAGCCGCATAAGAAGTCATCCACCAAGCGTTTAAGAGAGGTTCTAAACTCTGTCTTCCGACATCTGGATG
AAGTAGCCGCTACAAGTATACTGGATGCATCTGTGGAGATCCCGGGACTGCAACTCAATAACCAAGACTATTTC
CTTATGTCTACTTCCATATTGACCTTAGTCTTCTTGAC**TAG**AAAGGCCAGCTGGCACCTCTGTCTCATGTTCGTG
CAGATTATTACAGACACCTCTTTCCTTTAGCCAGAGAATGGTTCAAATGTCTTACAGAACTAAGATCTTTTTCAG
AGAAATTGCTCACAAAAGTTAGTGACAGTTGTATTTATTTTTTTAAGTTACAATAAAATGCTCTCAAGTCCTTTG
AATGTTCCAACAAATTCAAAACTTCATTTTCTGAATGTTTTACATAAATGCGAACTACCTGTTCGCATTGGTAAC
CTGCTGCTGTATTTCATGTCTTAACGGCTATTTTGAGGTTCATTAACAACATAGAAAGCCTTGAACTGTATAACC
AGCTAGATTCCTTAATAATTAGTCACTAGAGACAGCCCAAAGACAAATATTGGGCAGGAAATCAGTTCTCACTGA
GCCCGGTTTCCATGTAAAATCTCTGTTGTGGTGGGCATAGGTGGCACCATCTAAAGAAAAGAGGTCTTGTTTTTT
GTTTAAAAAAGTTTGTGGGGAGGAAAGACATCTGTGTATCACTTCAAAATATTGATTTACTGCTAAACATCACTC
TGAATTTATGATGTGGATACTAACTTCATACATTTATCGGCATTGTCCAAAATATTTTATTCTTTAATGGAAAAA
GCCATTAATATTCAAATGAAGGGATCACATTAAAAAAAAACCCATACATAAGAAACAGCCTCCAAGAACATTCAAG
CAGCAGTCAGAGAGAAAAATGTTTCGACAGCCAAGTTTTCTTCAAAATATTATGTGACAGAATACGACTCAATTC
ACCGGCTACAACAATTCATAGAATTTTTCAATGTTTTCTTGAGATGCAAAAGTTCACTGTTGCAGTGTTTTCAAA
TGACCAATCAAGTACTACTTCTTGGTTAAAAGGCCACTGGTAGAGTCATCTGAGTGTAGAGAATGTCCCTTCACT
GCTGGAAAAATCCACTGGCTCCCAAGAAAGAAAATGGTCTGAAGCCTCTGTTGTGGCTCTCACAACTCATCTTT
CCCTAAGTCATCAAGCTCCACATCACTGAGGTCAATGTCATCCTCCACGGGAAGCTGGGAGACGACAGAAAGCCA
CTGTTAGATCTGCAGAAGGGGACACCCTGGAAGGTCAACATCTCATTTATGGAAGAGCGACTCTCTGGAGCTAC
TCCTGCTACAATCCAGGTTCTCCTCAGTCTGACTCCTACCCTGACCTTCGTACCTATGATTATACGGATGGAAAA
GCTCAGAACTCAGGTGAAACATTTCAACATCACATCACTCACCATTTTAACACTGGAAGCCACTTGAACGTGTCC
TTTGAGGAGGGTGGGACACAACAGTACAGAAATAAGTGCTAATTTCAAAGCTATCATTTTCTATTTTTCTAAGA
TAAAGTAAATGAATTCCAGGTTAAATGTTCACTTTAAGGTAATAATCAGGAAAGCAACCTTACTACTGAAATGTA
TCTTGGCTGTCAAGAGTATCAAATGCCATGCAGCACTTAAACTTGTGATAAGGAAGATGAAGGGTCTTCAGAGAA
GAACCTCTTAAAAGGCCCACGGGTGCACCAGGGCTGAGGTCTGATGGGAAGGACTTGACTCCAGGTGCAGAGATG
CACAGGCTCAAGAGAGTAAACCAGGACTGCTGCCCGCACAGCTTCCCTCCCGGGCACTCACCTCGCCATCCCTGC
CGTCCCAAGGCTCTCTCTCAACGATGGTAGGGAAAGCCCCGCCTCCTACAGGTGCCGTGGAGCCACGCCCAAAAG
AGAGCTCCCTTAGGGAAAAATGACCAAAACACACACACACATTTACAATGGACTGCTGGTGCAGAAGAATAAACA
ACTTTAAAAATAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 574

MSEFWLISAPGDKENLQALERMNTVTSKSNLSYNTKFAIPDFKVGTLDSLVGLSDELGKLDTFAESLIRRMAQSV
VEVMEDSKGKVQEHLLANGVDLTSFVTHFEWDMAKYPVKQPLVSVVDTIAKQLAQIEMDLKSRTAAYDTLKTNLE
NLEKKSMGNLFTRTLSDIVSKEDFVLDSEYLVTLLVIVPKPNYSQWQKTYESLSDMVVPRSTKLITEDKEGGLFT
VTLFRKVIEDFKTKAKENKFTVREFYYDEKEIEREREEMARLLSDKKQQYGPLLRWLKVNFSEAFIAWIHIKALR
VFVESVLRYGLPVNFQAVLLQPHKKSSTKRLREVLNSVFRHLDEVAATSILDASVEIPGLQLNNQDYFPYVYFHI
DLSLLD

FIGURE 575

AGATCTGAATCCAGAGGCTCTCGGAGGAAGAGCTCAGGCCACTGAGGCGGCTCCCAGCTGCGTTGGCGAC**ATG**GC
CGACACCCCCAGAGATGCCGGGCTCAAGCAGGCGCCTGCATCACGGAACGAGAAGGCCCCGGTGGACTTCGGCTA
CGTGGGGATTGACTCCATCCTGGAGCAGATGCGCCGGAAGGCCATGAAGCAGGGCTTCGAGTTCAACATCATGGT
GGTCGGGCAGAGCGGCTTGGGTAAATCCACCTTAATCAACACCCTCTTCAAATCCAAAATCAGCCGGAAGTCGGT
GCAGCCCACCTCAGAGGAGCGCATCCCCAAGACCATCGAGATCAAGTCCATCACGCACGATATTGAGGAGAAAGG
CGTCCGGATGAAGCTGACAGTGATTGACACACCAGGGTTCGGGGACCACATCAACAACGAGAACTGCTGGCAGCC
CATCATGAAGTTCATCAATGACCAGTACGAGAAATACCTGCAGGAGGAGGTCAACATCAACCGCAAGAAGCGCAT
CCCGGACACCCGCGTCCACTGCTGCCTCTACTTCATCCCCGCCACCGGCCACTCCCTCAGGCCCCTGGAGCAGAA
AGTGCCTTTATCTCAGCCATCCGCAGACTGCTCGGCCAGATGCGGGGACAGGCTGGAA**TGA**GGGAGGCGTCTTCA
TCTCCCTGCCATCCCCCTCTCACGCCACCCCCGCCCCCACCGGGCTGCAGGTGCTGCTGATGCGCTGGGATCTGA
TTGAGGATAAAAAGGAAGGAGAGATGACCCCTACCCCCTCATCCCCCAGTTTTGAAAAGGTCTAAGCAAGTGAGT
CTGGTGGAGGAGCTGAGGGAGGGAGCCATGGAAGGTGCCAGAAGGAAGGTTGGCGGGGGCACGTGTGGGCCGTGG
CTTGGGCTGGTCAGAGTGGCGTGAGCTGCCCGGCGCCTGCCCTGCCCAAGTGACCAGGGAAGTGTGTGTGTGTCC
ATGTGTATGCGTGTCCGTCTGTCTGTCTAGTGTCTGGGTTTGGCCCAAGACTGGGCTGTAGTTACATTAATGCCC
AGCCAGCCACCCCTGCCACTCACCCCTCCTGGCCCAGGCCTTGCTGACTCTCTGAGCTGGGGAGGTGGGAGGCCA
GGCGAGCCTGACTCTGTTGATCTACCCGTGCCTGGGCCCCTCCCCTCAGAGCCCATGGTAACGAACCCCTAGAAA
GGAGAGAACGGGCGTCAGGGGTGCACAGTCCACAGCTGAAGAGCAAGGTTTCGTGGCAGCACGGCCCGGCCCCTC
ACCCTCTGTCCCCACGAGGGGACCCATGGGGGCTGTCTTTGCAGGGCACAGATGACCAAAGTCCCTTCCTGCTTC
CTGTTACCTGTCTTGCTCCTGGGGAGAAAGAGGGGCCTGATGAGACTCCACTCAGGTGCACACATCACCAGGTGC
ATCTGCAGGCACCGGGCTGGCTGCTTGCAGCCAGGAGAAGGTCAGCGAGAAGGAGTGTATGAGTGTGAGTGTGTG
TGCATGGAAGTTGGGGCACTGGGCGTCTGACTCCCTCCCCACCCAAGAGAGGAAGGACCCCTCACCACCCCCACT
GGCGAGACAGTTTACTTTGCCGACTTGCCATGTTTTTGCCAAAACCAAGATTTTGAAGGAAATGAGTGGCCAGCG
CCAGGGCCCAGGCCATGTGGCCTGCCCAGCCTCAATGTCACTTGGTGGCGGGGTGGGGTGGGGGTGGGCAGCAGC
ATCCCAGCCTTGAGATGCTTCACTTTCCTTCTCTGTAACCAGACTTTGAAAAATTGTTCGTTTCATCAGGCTCTG
TTCCTCAATGGCCTTTTGCTACGTGCCTCCCGAGAAATTTGTCTTTTTGTATAAATGACAAAGTGTTGAAAATGT
ATTTCCTGAAATAAATGTTTCAAATGC

FIGURE 576

MADTPRDAGLKQAPASRNEKAPVDFGYVGIDSILEQMRRKAMKQGFEFNIMVVGQSGLGKSTLINTLFKSKISRK
SVQPTSEERIPKTIEIKSITHDIEEKGVRMKLTVIDTPGFGDHINNENCWQPIMKFINDQYEKYLQEEVNINRKK
RIPDTRVHCCLYFIPATGHSLRPLEQKVPLSQPSADCSARCGDRLE

FIGURE 577

GTTCTTGCCTGGTGTCGGTGGTTAGTTTCTGCGACTTGTGTTGGGACTGCTGATAGGAAG**ATG**TCTTCAGGAAAT
GCTAAAATTGGGCACCCTGCCCCCAACTTCAAAGCCACAGCTGTTATGCCAGATGGTCAGTTTAAAGATATCAGC
CTGTCTGACTACAAAGGAAAATATGTTGTGTTCTTCTTTTACCCTCTTGACTTCACCTTTGTGTGCCCCACGGAG
ATCATTGCTTTCAGTGATAGGGCAGAAGAATTTAAGAAACTCAACTGCCAAGTGATTGGTGCTTCTGTGGATTCT
CACTTCTGTCATCTAGCATGGGTCAATACACCTAAGAAACAAGGAGGACTGGGACCCATGAACATTCCTTTGGTA
TCAGACCCGAAGCGCACCATTGCTCAGGATTATGGGGTCTTAAAGGCTGATGAAGGCATCTCGTTCAGGGGCCTT
TTTATCATTGATGATAAGGGTATTCTTCGGCAGATCACTGTAAATGACCTCCCTGTTGGCCGCTCTGTGGATGAG
ACTTTGAGACTAGTTCAGGCCTTCCAGTTCACTGACAAACATGGGGAAGTGTGCCCAGCTGGCTGGAAACCTGGC
AGTGATACCATCAAGCCTGATGTCCAAAAGAGCAAAGAATATTTCTCCAAGCAGAAG**TGA**GCGCTGGGCTGTTTT
AGTGCCAGGCTGCGGTGGGCAGCCATGAGAACAAAACCTCTTCTGTATTTTTTTTTTCCATTAGTAAAACACAAG
ACTTCAGATTCAGCCGAATTGTGGTGTCTTACAAGGCAGGCCTTTCCTACAGGGGGTGGAGAGACCAGCCTTTCT
TCCTTTGGTAGGAATGGCCTGAGTTGGCGTTGTGGGCAGGCTACTGGTTTGTATGATGTATTAGTAGAGCAACCC
ATTAATCTTTTGTAGTTTGTATTAAACTTGAACTGAG

FIGURE 578

MSSGNAKIGHPAPNFKATAVMPDGQFKDISLSDYKGKYVVFFFYPLDFTFVCPTEIIAFSDRAEEFKKLNCQVIG
ASVDSHFCHLAWVNTPKKQGGLGPMNIPLVSDPKRTIAQDYGVLKADEGISFRGLFIIDDKGILRQITVNDLPVG
RSVDETLRLVQAFQFTDKHGEVCPAGWKPGSDTIKPDVQKSKEYFSKQK

FIGURE 579

GTCACTCGTATAAAAACCTATGCTTTGAAGGTTCTCGTGTGTCTCGGCCTGCAGGTCTCGCTCAGAGCTGTGTCC
CTGAACATCCACCCTGCTGGGGTGGCTTGACGCACTTCTGTGCAAATCTGTTCGCTCGCAACCCTACCTACCTCT
CTCCCGAACCGGAGAAAACCTTCGGCGGGGTCCTTCCGGGTTTTGTGTCGAATCTGCGGCGGCGACCCGGCGCCG
CGTCACGCGGTGGTGAATGTGCGGCAGTACGCGCGCCGCGTCGTTTACGCGGCGATTTCATCATGCTCCGAGCCG
GCGGCGCGCGCCGCTTCCGTCGCCACCCTCTCTGGACAGCCCAGGGCCGCAGGCTCATGCCCTCTCCGCGTCCAG
TGCTGCTTAGAGGTGCTCGCGCCGCTCTGCTGCTGCTGCCGCCCCGGCTCTTAGCCCGACCCTCGCTCCTCC
TCCGCCGGTCCCTCAGCGCGGCCTCCTGCGCCCCGATCTCCTTGCCCGCCGCCGCCTCCGGAGCAGC**ATG**GACG
GCGCGGGGGCTGAGGAGGTGCTGGCACCTCTGAGGCTAGCAGTGCGCCAGCAGGGAGATCTTGTGCGAAAACTCA
AAGAAGATAAAGCACCCCAAGTAGACGTAGACAAAGCAGTGGCTGAGCTCAAAGCCCGCAAGAGGGTTCTGGAAG
CAAAGGAGCTGGCGTTACAGCCCAAAGATGATATTGTAGACCGAGCAAAAATGGAAGATACCCTGAAGAGGAGGT
TTTTCTATGATCAAGCTTTTGCTATTTATGGAGGTGTTAGTGGTCTGTATGACTTTGGGCCAGTTGGCTGTGCTT
TGAAGAACAATATTATTCAGACCTGGAGGCAGCACTTTATCCAAGAGGAACAGATCCTGGAGATCGATTGCACCA
TGCTCACCCCTGAGCCAGTTTTAAAGACCTCTGGCCATGTAGACAAATTTGCTGACTTCATGGTGAAAGACGTAA
AAAATGGAGAATGTTTTCGTGCTGACCATCTATTAAAAGCTCATTACAGAAATTGATGTCTGATAAGAAGTGTT
CTGTCGAAAAGAAATCAGAAATGGAAAGTGTTTTGGCCCAGCTTGATAACTATGGACAGCAAGAACTTGCGGATC
TTTTTGTGAACTATAATGTAAAATCTCCCATTACTGGAAATGATCTATCCCCTCCAGTGTCTTTTAACTTAATGT
TCAAGACTTTCATTGGGCCTGGAGGAAACATGCCTGGGTACTTGAGACCAGAAACTGCACAGGGGATTTTCTTGA
ATTTCAAACGACTTTTGGAGTTCAACCAAGGAAAGTTGCCTTTTGCTGCTGCCCAGATTGGAAATTCTTTTAGAA
ATGAGATCTCCCCTCGATCTGGACTGATCAGAGTCAGAGAATTCACAATGGCAGAAATTGAGCACTTTGTAGATC
CCAGTGAGAAAGACCACCCCAAGTTCCAGAATGTGGCAGACCTTCACCTTTATTTGTATTCAGCAAAAGCCCAGG
TCAGCGGACAGTCCGCTCGGAAAATGCGCCTGGGAGATGCTGTTGAACAGGGTGTGATTAATAACACAGTATTAG
GCTATTTCATTGGCCGCATCTACCTCTACCTCACGAAGGTTGGAATATCTCCAGATAAACTCCGCTTCCGGCAGC
ACATGGAGAATGAGATGGCCCATTATGCCTGTGACTGTTGGGATGCAGAATCCAAAACATCCTACGGTTGGATTG
AGATTGTTGGATGTGCTGATCGTTCCTGTTATGACCTCTCCTGTCATGCACGAGCCACCAAAGTCCCACTTGTAG
CTGAGAAACCTCTGAAAGAACCCAAAACAGTCAATGTTGTTCAGTTTGAACCCAGTAAGGGAGCAATTGGTAAGG
CATATAAGAAGGATGCAAAACTGGTGATGGAGTATCTTGCCATTTGTGATGAGTGCTACATTACAGAAATGGAGA
TGCTGCTGAATGAGAAAGGGGAATTCACAATTGAAACTGAAGGGAAAACATTTCAGTTAACAAAAGACATGATCA
ATGTGAAGAGATTCCAGAAAACACTATATGTGGAAGAAGTTGTTCCGAATGTAATTGAACCTTCCTTCGGCCTGG
GTAGGATCATGTATACGGTATTTGAACATACATTCCATGTACGAGAAGGAGATGAACAGAGAACATTCTTCAGTT
TCCCTGCTGTAGTTGCTCCATTCAAATGTTCCGTCCTCCCACTGAGCCAAAACCAGGAGTTCATGCCATTTGTCA
AGGAATTATCGGAAGCCCTGACCAGGCATGGAGTATCTCACAAAGTAGACGATTCCTCTGGGTCAATCGGAAGGC
GCTATGCCAGGACTGATGAGATTGGCGTGGCTTTTGGTGTCACCATTGACTTTGACACAGTGAACAAGACCCCCC
ACACTGCAACTCTGAGGGACCGTGACTCAATGCGGCAGATAAGAGCAGAGATCTCTGAGCTGCCCAGCATAGTCC
AAGACCTAGCCAATGGCAACATCACATGGGCTGATGTGGAGGCCAGGTATCCTCTGTTTGAAGGGCAAGAGACTG
GTAAAAAGAGACAATCGAGGAA**TGA**GGACAATTTTGACAACTTTTGACCACTTGCGCTAATAAAAAAAAAAAA
CTACTCTTATGTCCACTTTACAAAAGAAACAGCATTGTGATTACTCCCAGGGACCGTATTTTATCTTCAGTGGC
TGCCTGATTTTACCCCCACAATTAAAGTTGAAGGAATCCTGA

FIGURE 580

MDGAGAEEVLAPLRLAVRQQGDLVRKLKEDKAPQVDVDKAVAELKARKRVLEAKELALQPKDDIVDRAKMEDTLK
RRFFYDQAFAIYGGVSGLYDFGPVGCALKNNIIQTWRQHFIQEEQILEIDCTMLTPEPVLKTSGHVDKFADFMVK
DVKNGECFRADHLLKAHLQKLMSDKKCSVEKKSEMESVLAQLDNYGQQELADLFVNYNVKSPITGNDLSPPVSFN
LMFKTFIGPGGNMPGYLRPETAQGIFLNFKRLLEFNQGKLPFAAAQIGNSFRNEISPRSGLIRVREFTMAEIEHF
VDPSEKDHPKFQNVADLHLYLYSAKAQVSGQSARKMRLGDAVEQGVINNTVLGYFIGRIYLYLTKVGISPDKLRF
RQHMENEMAHYACDCWDAESKTSYGWIEIVGCADRSCYDLSCHARATKVPLVAEKPLKEPKTVNVVQFEPSKGAI
GKAYKKDAKLVMEYLAICDECYITEMEMLLNEKGEFTIETEGKTFQLTKDMINVKRFQKTLYVEEVVPNVIEPSF
GLGRIMYTVFEHTFHVREGDEQRTFFSFPAVVAPFKCSVLPLSQNQEFMPFVKELSEALTRHGVSHKVDDSSGSI
GRRYARTDEIGVAFGVTIDFDTVNKTPHTATLRDRDSMRQIRAEISELPSIVQDLANGNITWADVEARYPLFEGQ
ETGKKETIEE

FIGURE 581

GTAGGAGGACCTGAAATTGAGCTGATTGCCATCGCAACAGGAGGGCGGATCGTCCCCAGGTTCTCAGAGCTCACA
GCCGAGAAGCTGGGCTTTGCTGGTCTTGTACAGGAGATCTCATTTGGGACAACTAAGGATAAA**ATG**CTGGTCATC
GAGCAGTGTAAGAACTCCAGAGCTGTAACCATTTTTATTAGAGGAGGAAATAAGATGATCATTGAGGAGGCGAAA
CGATCCCTTCACGATGCTTTGTGTGTCATCCGGAACCTCATCCGCGATAATCGTGTGGTGTATGGAGGAGGGGCT
GCTGAGATATCCTGTGCCCTGGCAGTTAGCCAAGAGGCGGATAAGTGCCCCACCTTAGAACAGTATGCCATGAGA
GCGTTTGCCGACGCACTGGAGGTCATCCCCATGGCCCTCTCTGAAAACAGTGGCATGAATCCCATCCAGACTATG
ACCGAAGTCCGAGCCAGACAGGTGAAGGAGATGAACCCTGCTCTTGGCATCGACTGTTTGCACAAGGGGACAAAT
GATATGAAGCAACAGCATGTCATAGAAACCTTGATTGGCAAAAAGCAACAGATATCTCTTGCAACACAAATGGTT
AGAATGATTTTGAAGATTGATGACATTCGTAAGCCTGGAGAATCTGAAGAA**TGA**AGACATTGAGAAAACTATGTA
GCAAGATCCACTTCTGTGATTAAGTAAATGGATGTCTCGTGATGCGTCTACAGTTATTTATTGTTACATCCTTTT
CCAGACACTGTAGATGCTATAATAAAAATAGCTGTTTGGTAACCATAGTTTCACTTGTTCAAAGCCGTGTAATCG
TGGGGGTACTATCTCAACTGCTTTTGTATTCATTGTATTAAAAGAATCTGTTAAGCAAAAAAAAAAAAAAAAAAA
AAAAAAA

FIGURE 582

MLVIEQCKNSRAVTIFIRGGNKMIIEEAKRSLHDALCVIRNLIRDNRVVYGGGAAEISCALAVSQEADKCPTLEQ
YAMRAFADALEVIPMALSENSGMNPIQTMTEVRARQVKEMNPALGIDCLHKGTNDMKQQHVIETLIGKKQQISLA
TQMVRMILKIDDIRKPGESEE

FIGURE 583

AATTCGGGGGCCGTGGAGTTTGTGACATACGAGGTGACACCCCTCGAGTCACTTCCCTTCAACTCCAGCTGGAGC
GCCTGCTTGGCTTTGGGTTCGTTCTGCAGCCTTCGCCCCGCTCCTAGCCTCAGGGCCGGACTCCAGCGCAGAGCC
CAGCCCAGCGCAGCCTGCCAGCAGCCACCCAGCCGCCCAGCCGCCCAGCCCCGCACGAAACCCGGCCAGAGCTTC
CTAGCAGCCCGAGCC**ATG**AACACCGAAATGTATCAGACCCCCATGGAGGTGGCGGTCTACCAGCTGCACAATTTC
TCCATCTCCTTCTTCTCTTCTCTGCTTGGAGGGGATGTGGTTTCCGTTAAGCTGGACAACAGTGCCTCCGGAGCC
AGCGTGGTGGCCATAGACAACAAGATCGAACAGGCCATGGATCTGGTGAAGAATCATCTGATGTATGCTGTGAGA
GAGGAGGTGGAGATCCTGAAGGAGCAGATCCGAGAGCTGGTGGAGAAGAACTCCCAGCTAGAGCGTGAGAACACC
CTGTTGAAGACCCTGGCAAGCCCAGAGCAGCTGGAGAAGTTCCAGTCCTGTCTGAGCCCTGAAGAGCCAGCTCCC
GAATCCCCACAAGTGCCCGAGGCCCCTGGTGGTTCTGCGGTG**TAA**GTGGCTCTGTCCTCAGGGTGGGCAGAGCCA
CTAAACTTGTTTTACCTAGTTCTTTCCAGTTTGTTTTTGGCTCCCCAAGCATCATCTCACGAGGAGAACTTTACA
CCTAGCACAGCTGGTGCCAAGAGATGTCCTAAGGACATGGCCACCTGGGTCCACTCCAGCGACAGACCCCTGACA
AGAGCAGGTCTCTGGAGGCTGAGTTGCATGGGGCCTAGTAACACCAAGCCAGTGAGCCTCTAATGCTACTGCGCC
CTGGGGGCTCCCAGGGCCTGGGCAACTTAGCTGCAACTGGCAAAGGAGAAGGGTAGTTTGAGGTGTGACACCAGT
TTGCTCCAGAAAGTTTAAGGGGTCTGTTCTCATCTCCATGGACATCTTCAACAGCTTCACCTGACAACGACTGT
TCCTATGAAGAAGCCACTTGTGTTTTAAGCAGAGGCAACCTCTCTCTTCTCCTCTGTTTCGTGAAGGCAGGGGAC
ACAGATGGGAGAGATTGAGCCAAGTCAGCCTTCTGTTGGTTAATATGGTATAATGCATGGCTTTGTGCACAGCCC
AGTGTGGGATTACAGCTTTGGGATGACCGCTTACAAAGTTCTGTTTGGTTAGTATTGGCATAGTTTTTCTATATA
GCCATAAATGCGTATATATACCCATAGGGCTAGATCTGTATCTTAGTGTAGCGATGTATACATATACACATCCAC
CTACATGTTGAAGGGCCTAACCAGCCTTGGGAGTATTGACTGGTCCCTTACCTCTTATGGCTAAGTCTTTGACTG
TGTTCATTTACCAAGTTGACCCAGTTTGTCTTTTAGGTTAAGTAAGAACTCGAGAGTAAAGGCAAGGAGGGGGGC
CAGCCTCTGAATGCGGCCACGGATGCCTTGCTGCTGCAACCCTTTCCCCAGCTGTCCACTGAAACGTGAAGTCCT
GTTTTGAATGCCAAACCCACCATTCACTGGTGCTGACTACATAGAATGGGTTGAGAGAAGATCAGTTTGGGCTTC
ACAGTGTCATTTGAAAAAGCGTTTTTGTTTTGTTTTGAATTATTGTGGAAAACTTTCAAGTGAACAGAAGGATGG
TGTCCTACTGTGGATGAGGGATGAACAAGGGGATGGCTTTGATCCAATGGAGCCTGGGAGGTGTGCCCAGAAAGC
TTGTCTGTAGCGGGTTTTGTGAGAGTGAACACTTTCCACTTTTTGACACCTTATCCTGATGTATGGTTCCAGGAT
TTGGATTTTGATTTTCCAAATGTAGCTTGAAATTTCAATAAACTTTGCTCTGTTTTTCTAAAAAATAAAAA

FIGURE 584

MNTEMYQTPMEVAVYQLHNFSISFFSSLLGGDVVSVKLDNSASGASVVAIDNKIEQAMDLVKNHLMYAVREEVEI
LKEQIRELVEKNSQLERENTLLKTLASPEQLEKFQSCLSPEEPAPESPQVPEAPGGSAV

FIGURE 585

GACGTTTCGCGCCAATTTCGGTTGGCCGGCCACAGTCCACCGCGCGGAGATTCTCAGCTTCCCCAGGAGCAAGAC
CTCTGAGCCCGCCAAGCGCGGCCGCACGGCCCTCGGCAGCG**ATG**GCACTGAAGGACTACGCGCTAGAGAAGGAAA
AGGTTAAGAAGTTCTTACAAGAGTTCTACCAGGATGATGAACTCGGGAAGAAGCAGTTCAAGTATGGGAACCAGT
TGGTTCGGCTGGCTCATCGGGAACAGGTGGCTCTGTATGTGGACCTGGACGACGTAGCCGAGGATGACCCCGAGT
TGGTGGACTCAATTTGTGAGAATGCCAGGCGCTACGCGAAGCTCTTTGCTGATGCCGTACAAGAGCTGCTGCCTC
AGTACAAGGAGAGGGAAGTGGTAAATAAAGATGTCCTGGACGTTTACATTGAGCATCGGCTAATGATGGAGCAGC
GGAGTCGGGACCCTGGGATGGTCCGAAGCCCCCAGAACCAGTACCCTGCTGAACTCATGCGCAGATTTGAGCTGT
ATTTTCAAGGCCCTAGCAGCAGCAAGCCTCGTGTGATCCGGGAAGTGCGGGCTGACTCTGTGGGGAAGTTGGTAA
CTGTGCGTGGAATCGTCACTCGTGTCTCTGAAGTCAAACCCAAGATGGTGGTGGCCACTTACACTTGTGACCAGT
GTGGGGCAGAGACCTACCAGCCGATCCAGTCTCCCACTTTCATGCCTCTGATCATGTGCCCAAGCCAGGAGTGCC
AAACCAACCGCTCAGGAGGGCGGCTGTATCTGCAGACACGGGGCTCCAGATTCATCAAATTCCAGGAGATGAAGA
TGCAAGAACATAGTGATCAGGTGCCTGTGGGAAATATCCCTCGTAGTATCACGGTGCTGGTAGAAGGAGAGAACA
CAAGGATTGCCCAGCCTGGAGACCACGTCAGCGTCACTGGTATTTTCTTGCCAATCCTGCGCACTGGGTTCCGAC
AGGTGGTACAGGGTTTACTCTCAGAAACCTACCTGGAAGCCCATCGGATTGTGAAGATGAACAAGAGTGAGGATG
ATGAGTCTGGGGCTGGAGAGCTCACCAGGGAGGAGCTGAGGCAAATTGCAGAGGAGGATTTCTACGAAAAGCTGG
CAGCTTCAATCGCCCCAGAAATATACGGGCATGAAGATGTGAAGAAGGCACTGCTGCTCCTGCTAGTCGGGGGTG
TGGACCAGTCTCCTCGAGGCATGAAAATCCGGGGCAACATCAACATCTGTCTGATGGGGGATCCTGGTGTGGCCA
AGTCTCAGCTCCTGTCATACATTGATCGACTGGCGCCTCGCAGCCAGTACACAACAGGCCGGGGCTCCTCAGGAG
TGGGGCTTACGGCAGCTGTGCTGAGAGACTCCGTGAGTGGAGAACTGACCTTAGAGGGTGGGGCCCTGGTGCTGG
CTGACCAGGGTGTGTGCTGCATTGATGAGTTCGACAAGATGGCTGAGGCCGACCGCACAGCCATCCACGAGGTCA
TGGAGCAGCAGACCATCTCCATTGCCAAGGCCGGCATTCTCACCACACTCAATGCCCGCTGCTCCATCCTGGCTG
CCGCCAACCCTGCCTACGGGCGCTACAACCCTCGCCGCAGCCTGGAGCAGAACATACAGCTACCTGCTGCACTGC
TCTCCCGGTTTGACCTCCTCTGGCTGATTCAGGACCGGCCCGACCGAGACAATGACCTACGGTTGGCCCAGCACA
TCACCTATGTGCACCAGCACAGCCGGCAGCCCCCTCCCAGTTTGAACCTCTGGACATGAAGCTCATGAGGCGTT
ACATAGCCATGTGCCGCGAGAAGCAGCCCATGGTGCCAGAGTCTCTGGCTGACTACATCACAGCAGCATACGTGG
AGATGAGGCGAGAGGCTTGGGCTAGTAAGGATGCCACCTATACTTCTGCCCGGACCCTGCTGGCTATCCTGCGCC
TTTCCACTGCTCTGGCACGTCTGAGAATGGTGGATGTGGTGGAGAAGAAGATGTGAATGAAGCCATCAGGCTAA
TGGAGATGTCAAAGGACTCTCTTCTAGGAGACAAGGGGCAGACAGCTAGGACTCAGAGACCAGCAGATGTGATAT
TTGCCACCGTCCGTGAACTGGTCTCAGGGGGCCGAAGTGTCCGGTTCTCTGAGGCAGAGCAGCGCTGTGTATCTC
GTGGCTTCACACCCGCCCAGTTCCAGGCGGCTCTGGATGAATATGAGGAGCTCAATGTCTGGCAGGTCAATGCTT
CCCGGACACGGATCACTTTTGTC**TGA**TTCCAGCCTGCTTGCAACCCTGGGGTCCTCTTGTTCCCTGCTGGCCTGC
CCCTTGGGAAGGGGCAGTGATGCCTTTGAGGGGAAGGAGGAGCCCCTCTTTCTCCCATGCTGCACTTACTCCTTT
TGCTAATAAAAGTGTTTGTAGATTGTC

FIGURE 586

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MALKDYALEKEKVKKFLQEFYQDDELGKKQFKYGNQLVRLAHREQVALYVDLDDVAEDDPELVDSICENARRYAK
LFADAVQELLPQYKEREVVNKDVLDVYIEHRLMMEQRSRDPGMVRSPQNQYPAELMRRFELYFQGPSSSKPRVIR
EVRADSVGKLVTVRGIVTRVSEVKPKMVVATYTCDQCGAETYQPIQSPTFMPLIMCPSQECQTNRSGGRLYLQTR
GSRFIKFQEMKMQEHSDQVPVGNIPRSITVLVEGENTRIAQPGDHVSVTGIFLPILRTGFRQVVQGLLSETYLEA
HRIVKMNKSEDDESGAGELTREELRQIAEEDFYEKLAASIAPEIYGHEDVKKALLLLLVGGVDQSPRGMKIRGNI
NICLMGDPGVAKSQLLSYIDRLAPRSQYTTGRGSSGVGLTAAVLRDSVSGELTLEGGALVLADQGVCCIDEFDKM
AEADRTAIHEVMEQQTISIAKAGILTTLNARCSILAAANPAYGRYNPRRSLEQNIQLPAALLSRFDLLWLIQDRP
DRDNDLRLAQHITYVHQHSRQPPSQFEPLDMKLMRRYIAMCREKQPMVPESLADYITAAYVEMRREAWASKDATY
TSARTLLAILRLSTALARLRMVDVVEKEDVNEAIRLMEMSKDSLLGDKGQTARTQRPADVIFATVRELVSGGRSV
RFSEAEQRCVSRGFTPAQFQAALDEYEELNVWQVNASRTRITFV
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FIGURE 587

CTTTCTGCCCACACTAGAC**ATG**GCGCTTGCCAGCGTGTTGGAGAGACCGCTACCGGTGAACCAGCGCGGGTTTTT
CGGACTTGGGGGTCGTGCAGATCTGCTGGATCTAGGTCCAGGGAGTCTCAGTGATGGTCTGAGCCTGGCCGCGCC
AGGCTGGGGTGTCCCAGAAGAGCCAGGAATCGAAATGCTTCATGGAACAACCACCCTGGCCTTCAAGTTCCGCCA
TGGAGTCATAGTTGCAGCTGACTCCAGGGCTACAGCGGGTGCTTACATTGCCTCCCAGACGGTGAAGAAGGTGAT
AGAGATCAACCCATACCTGCTAGGCACCATGGCTGGGGGCGCAGCGGATTGCAGCTTCTGGGAACGGCTGTTGGC
TCGGCAATGTCGAATCTATGAGCTTCGAAATAAGGAACGCATCTCTGTAGCAGCTGCCTCCAAACTGCTTGCCAA
CATGGTGTATCAGTACAAAGGCATGGGGCTGTCCATGGGCACCATGATCTGTGGCTGGGATAAGAGAGGCCCTGG
CCTCTACTACGTGGACAGTGAAGGGAACCGGATTTCAGGGGCCACCTTCTCTGTAGGTTCTGGCTCTGTGTATGC
ATATGGGGTCATGGATCGGGGCTATTCCTATGACCTGGAAGTGGAGCAGGCCTATGATCTGGCCCGTCGAGCCAT
CTACCAAGCCACCTACAGAGATGCCTACTCAGGAGGTGCAGTCAACCTCTACCACGTGCGGGAGGATGGCTGGAT
CCGAGTCTCCAGTGACAATGTGGCTGATCTACATGAGAAGTATAGTGGCTCTACCCCC**TGA**AAGAGGGTGGATGC
AGCTGCTTGTGTTTCTTGGGGTGACTGTCATTGGTAATACGGACACAGTGACCCATCCTCCATCCTATTTATAGT
GGAAGGGCCTTCAATTGTATCAGTACTTTTTTTTAAGCTCTGGCACATTGACCTCTATGTGTTACCAGTCATTAA
TGAGCTGCTGCAGAGGTGACTATTTGTTTTACTTTCTTGGATGTTAAACATTACACTACTCACTACTCAATCTCA

FIGURE 588

MALASVLERPLPVNQRGFFGLGGRADLLDLGPGSLSDGLSLAAPGWGVPEEPGIEMLHGTTTLAFKFRHGVIVAA
DSRATAGAYIASQTVKKVIEINPYLLGTMAGGAADCSFWERLLARQCRIYELRNKERISVAAASKLLANMVYQYK
GMGLSMGTMICGWDKRGPGLYYVDSEGNRISGATFSVGSGSVYAYGVMDRGYSYDLEVEQAYDLARRAIYQATYR
DAYSGGAVNLYHVREDGWIRVSSDNVADLHEKYSGSTP

FIGURE 589

TCTCTTGATTCCTAGTCTCTCGAT**ATG**GCACCTCCGTCAGTCTTTGCCGAGGTTCCGCAGGCCCAGCCTGTCCTG
GTCTTCAAGCTCACTGCCGACTTCAGGGAGGATCCGGACCCCCGCAAGGTCAACCTGGGAGTGGGAGCATATCGC
ACGGATGACTGCCATCCCTGGGTTTTGCCAGTAGTGAAGAAAGTGGAGCAGAAGATTGCTAATGACAATAGCCTA
AATCACGAGTATCTGCCAATCCTGGGCCTGGCTGAGTTCCGGAGCTGTGCTTCTCGTCTTGCCCTTGGGGATGAC
AGCCCAGCACTCAAGGAGAAGCGGGTAGGAGGTGTGCAATCTTTGGGGGGAACAGGTGCACTTCGAATTGGAGCT
GATTTCTTAGCGCGTTGGTACAATGGAACAAACAACAAGAACACACCTGTCTATGTGTCCTCACCAACCTGGGAG
AATCACAATGCTGTGTTTTCCGCTGCTGGTTTTAAAGACATTCGGTCCTATCGCTACTGGGATGCAGAGAAGAGA
GGATTGGACCTCCAGGGCTTCCTGAATGATCTGGAGAATGCTCCTGAGTTCTCCATTGTTGTCCTCCACGCCTGT
GCACACAACCCAACTGGGATTGACCCAACTCCGGAGCAGTGGAAGCAGATTGCTTCTGTCATGAAGCACCGGTTT
CTGTTCCCCTTCTTTGACTCAGCCTATCAGGGCTTCGCATCTGGAAACCTGGAGAGAGATGCCTGGGCCATTCGC
TATTTTGTGTCTGAAGGCTTCGAGTTCTTCTGTGCCCAGTCCTTCTCCAAGAACTTCGGGCTCTACAATGAGAGA
GTCGGGAATCTGACTGTGGTTGGAAAAGAACCTGAGAGCATCCTGCAAGTCCTTTCCCAGATGGAGAAGATCGTG
CGGATTACTTGGTCCAATCCCCCCGCCCAGGGAGCACGAATTGTGGCCAGCACCCTCTCTAACCCTGAGCTCTTT
GAGGAATGGACAGGTAATGTGAAGACAATGGCTGACCGGATTCTGACCATGAGATCTGAACTCAGGGCACGACTA
GAAGCCCTCAAAACCCCTGGGACCTGGAACCACATCACTGATCAAATTGGCATGTTCAGCTTCACTGGGTTGAAC
CCCAAGCAGGTTGAGTATCTGGTCAATGAAAGCACATCTACCTGCTGCCAAGTGGTCGAATCAACGTGAGTGGC
TTAACCACCAAAAATCTAGATTACGTGGCCACCTCCATCCATGAAGCAGTCACCAAAATCCAG**TGA**AGAAACACC
ACCCGTCCAGTACCACCAAAGTAGTTCTCTGTCATGTGTGTTCCCTGCCTGCACAAACCTACATGTACATACCAT
GGATTAGAGACACTTGCAGGACTGAAAGCTGCTCTGGTGAGGCAGCCTCTGTTTAAACCGGCCCCACATGAAGAG
AACATCCCTTGAGACGAATTTGGAGACTGGGATTAGAGCCTTTGGAGGTCAAAGCAAATTAAGATTTTTATTTAA
GAATAAAAGAGTACTTTGATCATGAGACATAGGTATCTTGTCCCTCTCACTAAAAAGGAGTGTTGTGTGTGGCGG
CCACGTGCTTCTATGTGGTGTTTGACTCTGTACAAATTCTAGTCCCAAAGATCAAGTTGTCTGAAGGAGCCAAAG
TGTGAATGTGGGTGTCGGCTGCGGCATTAAATTCATCATCTCAACCCAGAGTGTCTGGTCTCCCTGCTCTTTCTG
CATGGTTGTGTCCCTAGTCCTAAGCTTTGGTTCTTTAGGGTGACTGTGGTAAGAAGGATATTTAATCATGACATG
CACGGACACGTACATATTTAACTGAAACAAGTTTTACCAAACAGTATTTACTCGTGATGTGCGTAGTGCATTCTG
ATATTTTTGAGCCATTCTATTGTGTTCTACTTCACCTAAAAAAATAAAATAAAAATGTTGATCAAG

FIGURE 590

MAPPSVFAEVPQAQPVLVFKLTADFREDPDPRKVNLGVGAYRTDDCHPWVLPVVKKVEQKIANDNSLNHEYLPIL
GLAEFRSCASRLALGDDSPALKEKRVGGVQSLGGTGALRIGADFLARWYNGTNNKNTPVYVSSPTWENHNAVFSA
AGFKDIRSYRYWDAEKRGLDLQGFLNDLENAPEFSIVVLHACAHNPTGIDPTPEQWKQIASVMKHRFLFPFFDSA
YQGFASGNLERDAWAIRYFVSEGFEFFCAQSFSKNFGLYNERVGNLTVVGKEPESILQVLSQMEKIVRITWSNPP
AQGARIVASTLSNPELFEEWTGNVKTMADRILTMRSELRARLEALKTPGTWNHITDQIGMFSFTGLNPKQVEYLV
NEKHIYLLPSGRINVSGLTTKNLDYVATSIHEAVTKIQ

FIGURE 591

GAATTCGCTTTGGATCCATTTCCATCGGTCCTTACAGCCGCTCGTCAGACTCCAGCAGCCAAG**ATG**GTGAAGCAG
ATCGAGAGCAAGACTGCTTTTCAGGAAGCCTTGGACGCTGCAGGTGATAAACTTGTAGTAGTTGACTTCTCAGCC
ACGTGGTGTGGGCCTTGCAAAATGATCAACCCTTTCTTTCATTCCCTCTCTGAAAAGTATTCCAACGTGATATTC
CTTGAAGTAGATGTGGATGACTGTCAGGATGTTGCTTCAGAGTGTGAAGTCAAATGCACGCCAACATTCCAGTTT
TTTAAGAAGGGACAAAAGGTGGGTGAATTTTCTGGAGCCAATAAGGAAAAGCTTGAAGCCACCATTAATGAATTA
GTC**TAA**TCATGTTTTCTGAAAACATAACCAGCCATTGGCTATTTAAACTTGTATTTTTTATTTACAAAATATAA
ATATGAAGACATAACCAGTTGCCATCTGCGTGACAATAAACATTATGCTAA

FIGURE 592

MVKQIESKTAFQEALDAAGDKLVVVDFSATWCGPCKMINPFFHSLSEKYSNVIFLEVDVDDCQDVASECEVKCTP
TFQFFKKGQKVGEFSGANKEKLEATINELV

FIGURE 593

CTTGGAGGGAGGGATTAGAAGCCGCTAGACTTTTTTTCCTCCCCTCTCAGTAGCACGGAGTCCGAATTAATTGGA
TTTCATTCACTGGGGAGGAACAAAAACTATCTGGGCAGCTTCATTGAGAGAGATTCATTGACACTAAGAGCCAGC
GGCTGCAGCTGGGTGCAGAGAGAACCTCCGGCTTTACTTCTGTCTCGTCTGCCCCAACCGCTAGCCTCGGCTTGG
GTAAGGCGAGGCGGAATTAAACCCCGCTCCGAGAGCGGCAGCTTCGCGCGCGGTGCGCTCGGCCTATGCCTGCCC
CGAGGGGCGTCTGGTAGGCACCCCGCCCTCTCCCGCAGCTCGACCCCC**ATG**ATAGATACGCTCAGACCCGTGCCC
TTCGCGTCGGAAATGGCGATCAGCAAGACGGTGGCGTGGCTCAACGAGCAGCTGGAGCTGGGCAACGAGCGGCTG
CTGCTGATGGACTGCCGGCCGCAGGAGCTATACGAGTCGTCGCACATCGAGTCGGCCATCAACGTGGCCATCCCG
GGCATCATGCTGCGGCGCCTGCAGAAGGGTAACCTGCCGGTGCGCGCGCTCTTCACGCGCGGCGAGGACCGGGAC
CGCTTCACCCGGCGCTGTGGCACCGACACAGTGGTGCTCTACGACGAGAGCAGCAGCGACTGGAACGAGAATACG
GGCGGCGAGTCGTTGCTCGGGCTGCTGCTCAAGAAGCTCAAGGACGAGGGCTGCCGGGCGTTCTACCTGGAAGGT
GGCTTCAGTAAGTTCCAAGCCGAGTTCTCCCTGCATTGCGAGACCAATCTAGACGGCTCGTGTAGCAGCAGCTCG
CCGCCGTTGCCAGTGCTGGGGCTCGGGGGCCTGCGGATCAGCTCTGACTCTTCCTCGGACATCGAGTCTGACCTT
GACCGAGACCCCAATAGTGCAACAGACTCGGATGGTAGTCCGCTGTCCAACAGCCAGCCTTCCTTCCCAGTGGAG
ATCTTGCCCTTCCTCTACTTGGGCTGTGCCAAAGACTCCACCAACTTGGACGTGTTGGAGGAATTCGGCATCAAG
TACATCTTGAACGTCACCCCCAATTTGCCGAATCTCTTTGAGAACGCAGGAGAGTTTAAATACAAGCAAATCCCC
ATCTCGGATCACTGGAGCCAAAACCTGTCCCAGTTTTTCCCTGAGGCCATTTCTTTCATAGATGAAGCCCGGGGC
AAGAACTGTGGTGTCTTGGTACATTGCTTGGCTGGCATTAGCCGCTCAGTCACTGTGACTGTGGCTTACCTTATG
CAGAAGCTCAATCTGTCGATGAACGATGCCTATGACATTGTCAAAATGAAAAAATCCAACATATCCCCTAACTTC
AACTTCATGGGTCAGCTGCTGGACTTCGAGAGGACGCTGGGACTCAGCAGCCCATGTGACAACAGGGTTCCAGCA
CAGCAGCTGTATTTTACCACCCCTTCCAACCAGAATGTATACCAGGTGGACTCTCTGCAATCTACG**TGA**AAGACC
CCACATCCCTCCTTGCTGGAATGTGTCTGGCCCTTCAGCAGTTTCTCTTGGCAGCATCAGCTGGGCTGCTTTCTT
TGTGTGTGGCCCCAGGTGTCAAAATGACACCAGCTGTCTGTACTAGACAAGGTTACCAAGTGCGGAATTGGTTAA
TACTAACAGAGAGATTTGCTCCATTCTCTTTGGAATAACAGGACATGCTGTATAGATACAGGCAGTAGGTTTGCT
CTGTACCCATGTGTACAGCCTACCCATGCAGGGACTGGGATTCGAGGACTTCCAGGCGCATAGGGTAGAACCAAA
TGATAGGGTAGGAGCATGTGTTCTTTAGGGCCTTGTAAGGCTGTTTCCTTTTGCATCTGGAACTGACTATATAAT
TGTCTTCAATGAAGACTAATTCAATTTTGCATATAGAGGAGCCAAAGAGAGATTTCAGCTCTGTATTTGTGGTAT
CAGTTTGGAAAAAAAAATCTGATACTCCATTTGATTATTGTAAATATTTGATCTTGAATCACTTGACAGTGTTTG
TTTGAATTGTGTTTGTTTTTTCCTTTGATGGGCTTAAAAGAAATTATCCAAAGGGAGAAAGAGCAGTATGCCACT
TCTTAAAACAGAACAAAACAAAAAAAGAAAATTGTGCTCTTTTCTAATCCAAAGGGTATATTTGCAGCATGCTTG
ACTTTACCAATTCTGATGACATCTTTACGGACACTATTATCACTAAGACCTTGTTATGGCGAAGTCTTTAGTCTT
TTTCATGTATTTTCCTCATGATTTTTTCTCTTTATGTAGTTTGACTATGCCTTACCTTTGTAAATATTTTTGCTT
GTGTTGTCGCAAAGGGGATAATCTGGGAAAGACACCAAATCATGGGCTCACTTTAAAAAAAGAAAGAATAAAAAA
ACCTTCAGCTGTGCTAAACAGTATATTACCTCTGTATAAAATTCTTCAGGGAGTGTCACCTCAAATGCAATACTT
TGGGTTGGTTTCTTTCCTTTAAAAAAATTTGTATAAAACTGGAAGTGTGTGTGTGTGAGCATGGGTACCCATTTG
ATAAGAGAAATGCATTTGATTGTGAAGAAGGGAGAGTTAAATTCTCCATTATGTTCGTGGTGTAAAGTTTAGAGC
TGGAATTTATTATAAGAATGTAAAACCTTAAATTATTAATAAATAACTATTTTGGCTATTGAAAAAAAAAAAAAA
AAAAAAAA

FIGURE 594

MIDTLRPVPFASEMAISKTVAWLNEQLELGNERLLLMDCRPQELYESSHIESAINVAIPGIMLRRLQKGNLPVRA
LFTRGEDRDRFTRRCGTDTVVLYDESSSDWNENTGGESLLGLLLKKLKDEGCRAFYLEGGFSKFQAEFSLHCETN
LDGSCSSSSPPLPVLGLGGLRISSDSSSDIESDLDRDPNSATDSDGSPLSNSQPSFPVEILPFLYLGCAKDSTNL
DVLEEFGIKYILNVTPNLPNLFENAGEFKYKQIPISDHWSQNLSQFFPEAISFIDEARGKNCGVLVHCLAGISRS
VTVTVAYLMQKLNLSMNDAYDIVKMKKSNISPNFNFMGQLLDFERTLGLSSPCDNRVPAQQLYFTTPSNQNVYQV
DSLQST

FIGURE 595

CCAGCCTCGGAGGGAGGGATTAGAAGCCGCTAGACTTTTTTTCCTCCCCTCTCAGTAGCACGGAGTCCGAATTAA
TTGGATTTCATTCACTGGGGAGGAACAAAAACTATCTGGGCAGCTTCATTGAGAGAGATTCATTGACACTAAGAG
CCAGCGCTGCAGCTGGTGCAGAGAGAACCTCCGGCTTTGACTTCTGTCTCGTCTGCCCCAAGGCCGCTAGCCTCG
GCTTGGGAAGGCGAGGCGGAATTAAACCCCGCTCCGAGAGCGCACGTTCGCGCGCGGTGCGTCGGCCATTGCCTG
CCCCGAGGGGCGTCTGGTAGGCACCCCGCCCTCTCCCGCAGCTCGACCCCC**ATG**ATAGATACGCTCAGACCCGTG
CCCTTCGCGTCGGAAATGGCGATCAGCAAGACGGTGGCGTGGCTCAACGAGCAGCTGGAGCTGGGCAACGAGCGG
CTGCTGCTGATGGACTGCCGGCCGCAGGAGCTATACGAGTCGTCGCACATCGAGTCGGCCATCAACGTGGCCATC
CCGGGCATCATGCTGCGGCGCCTGCAGAAGGGTAACCTGCCGGTGCGCGCGCTCTTCACGCGCGGCGAGGACCGG
GACCGCTTCACCCGGCGCTGTGGCACCGACACAGTGGTGCTCTACGACGAGAGCAGCAGCGACTGGAACGAGAAT
ACGGGCGGCGAGTCGTTGCTCGGGCTGCTGCTCAAGAAGCTCAAGGACGAGGGCTGCCGGGCGTTCTACCTGGAA
GGTGGCTTCAGTAAGTTCCAAGCCGAGTTCTCCCTGCATTGCGAGACCAATCTAGACGGCTCGTGTAGCAGCAGC
TCGCCGCCGTTGCCAGTGCTGGGGCTCGGGGGCCTGCGGATCAGCTCTGACTCTTCCTCGGACATCGAGTCTGAC
CTTGACCGAGACCCCAATAGTGCAACAGACTCGGATGGTAGTCCGCTGTCCAACAGCCAGCCTTCCTTCCCAGTG
GAGATCTTGCCCTTCCTCTACTTGGGCTGTGCCAAAGACTCCACCAACTTGGACGTGTTGGAGGAATTCGGCATC
AAGTACATCTTGAACGTCACCCCCAATTTGCCGAATCTCTTTGAGAACGCAGGAGAGTTTAAATACAAGCAAATC
CCCATCTCGGATCACTGGAGCCAAAACCTGTCCCAGTTTTTCCCTGAGGCCATTTCTTTCATAGATGAAGCCCGG
GGCAAGAACTGTGGTGTCTTGGTACATTGCTTGGCTGGCATTAGCCGCTCAGTCACTGTGACTGTGGCTTACCTT
ATGCAGAAGCTCAATCTGTCGATGAACGATGCCTATGACATTGTCAAAATGAAAAAATCCAACATATCCCCTAAC
TTCAACTTCATGGGTCAGCTGCTGGACTTCGAGAGGACGCTGGGACTCAGCAGCCCATGTGACAACAGGGTTCCA
GCACAGCAGCTGTATTTTACCACCCCTTCCAACCAGAATGTATACCAGGTGGACTCTCTGCAATCTACGTGAAAG
ACCCCACACCCCTCCTTGCTGGAATGTGTCTGGCCCTTCAGCAGTTTCTCTTGGCAGCATCAGCTGGGCTGCTTT
CTTTGTGTGTGGCCCCAGGTGTCAAAATGACACCAGCTGTCTGTACTAGACAAGGTTACCAAGTGCGGAATTGGT
TAATACTAACAGAGAGATTTGCTCCATTCTCTTTGGAATAACAGGACATGCTGTATAGATACAGGCAGTAGGTTT
GCTCTGTACCCATGTGTACAGCCTACCCATGCAGGGACTGGGATTCGAGGACTTCCAGGCGCATAGGGTAGAACC
AAATGATAGGGTAGGAGCATGTGTTCTTTAGGGCCTTGTAAGGCTGTTTCCTTTTGCATCTGGAACTGACTATAT
AATTGTCTTCAAGTGAAGACTAATTCAATTTTGCATATAGAGGAGCCAAAGAGAGATTTCAGCTCTGTATTTGTG
GTATCAGTGTTGGAAAAGAGAAATCTGATACTCCATTTGGATTATTGTAAATATTTGATCTTGAATCACTTGACA
GTGTTTGTTTGAATTGTGTTTGTTTTTTCCTTTGATGGGCTTAAAAGAAATTATCCAAAGGGAGAAAGAGCAGTA
TGCCACTTCTTAAAACAGAACAAAACAAAAAAGAAAATTGTGCTCTGTTGTAATCCAAAGGGGAGATTTGCAGC
ATGCTTGACTTTACCAATTCTGATGACATCTTTACGGACACTATTATCACTAAGACCTTGTTATGGCGAAGTCTT
TAGTCTTTTTCATGTATTTTCCTCATGATTTTTTCTCTTTATGTAGTTTGAGTATGCCTTACCTTTGTAAATATT
TTTGCTTGTGTTGTCGCAAAGGGGATAATCTGGGAAAGACACCAAATCATGGGCTCACTTTAAAA

FIGURE 596

MIDTLRPVPFASEMAISKTVAWLNEQLELGNERLLLMDCRPQELYESSHIESAINVAIPGIMLRRLQKGNLPVRA
LFTRGEDRDRFTRRCGTDTVVLYDESSSDWNENTGGESLLGLLLKKLKDEGCRAFYLEDEARGKNCGVLVHCLAG
ISRSVTVTVAYLMQKLNLSMNDAYDIVKMKKSNISPNFNFMGQLLDFERTLGLSSPCDNRVPAQQLYFTTPSNQN
VYQVDSLQST

FIGURE 597

GCTGAGTCCAAGAGATAGCAAATCGAGTCTTAAATAATCCGGGGAGAAAGACGCCCGGGTAGATTTGAGGTGCAG
CCTTGGAGGGAGGGATTAGAAGCCGCTAGACTTTTTTTCCTCCCCTCTCAGTAGCACGGAGTCCGAATTAATTGG
ATTTCATTCACTGGGGAGGAACAAAAACTATCTGGGCAGCTTCATTGAGAGAGATTCATTGACACTAAGAGCCAG
CGGCTGCAGCTGGGTGCAGAGAGAACCTCCGGCTTTACTTCTGTCTCGTCTGCCCCAACCGCTAGCCTCGGCTTG
GGTAAGGCGAGGCGGAATTAAACCCCGCTCCGAGAGCGGCAGCTTCGCGCGCGGTGCGCTCGGCCTATGCCTGCC
CCGAGGGGCGTCTGGTAGGCACCCCGCCCTCTCCCGCAGCTCGACCCCC**ATG**ATAGATACGCTCAGACCCGTGCC
CTTCGCGTCGGAAATGGCGATCAGCAAGACGGTGGCGTGGCTCAACGAGCAGCTGGAGCTGGGCAACGAGCGGCT
GCTGCTGATGGACTGCCGGCCGCAGGAGCTATACGAGTCGTCGCACATCGAGTCGGCCATCAACGTGGCCATCCC
GGGCATCATGCTGCGGCGCCTGCAGAAGGGTAACCTGCCGGTGCGCGCGCTCTTCACGCGCGGCGAGGACCGGGA
CCGCTTCACCCGGCGCTGTGGCACCGACACAGTGGTGCTCTACGACGAGAGCAGCAGCGACTGGAACGAGAATAC
GGGCGGCGAGTCGGTGCTCGGGCTGCTGCTCAAGAAGCTCAAGGACGAGGGCTGCCGGGCGTTCTACCTGGAAGG
TGGCTTCAGTAAGTTCCAAGCCGAGTTCTCCCTGCATTGCGAGACCAATCTAGACGGCTCGTGTAGCAGCAGCTC
GCCGCCGTTGCCAGTGCTGGGGCTCGGGGGCCTGCGGATCAGCTCTGACTCTTCCTCGGACATCGAGTCTGACCT
TGACCGAGACCCCAATAGTGCAACAGACTCGGATGGTAGTCCGCTGTCCAACAGCCAGCCTTCCTTCCCAGTGGA
GATCTTGCCCTTCCTCTACTTGGGCTGTGCCAAAGACTCCACCAACTTGGACGTGTTGGAGGAATTCGGCATCAA
GTACATCTTGAACGTCACCCCCAATTTGCCGAATCTCTTTGAGAACGCAGGAGAGTTTAAATACAAGCAAATCCC
CATCTCGGATCACTGGAGCCAAAACCTGTCCCAGTTTTTCCCTGAGGCCATTTCTTTCATAGATGAAGCCCGGGG
CAAGAACTGTGGTGTCTTGGTACATTGCTTGGCTGGCATTAGCCGCTCAGTCACTGTGACTGTGGCTTACCTTAT
GCAGAAGCTCAATCTGTCGATGAACGATGCCTATGACATTGTCAAAATGAAAAAATCCAACATATCCCCTAACTT
CAACTTCATGGGTCAGCTGCTGGACTTCGAGAGGACGCTGGGACTCAGCAGCCCATGTGACAACAGGGTTCCAGC
ACAGCAGCTGTATTTTACCACCCCTTCCAACCAGAATGTATACCAGGTGGACTCTCTGCAATCTACG**TGA**AAGAC
CCCACACCCCTCCTTGCTGGAATGTGTCTGGCCCTTCAGCAGTTTCTCTTGGCAGCATCAGCTGGGCTGCTTTCT
TTGTGTGTGGCCCCAGGTGTCAAAATGACACCAGCTGTCTGTACTAGACAAGGTTACCAAGTGCGGAATTGGTTA
ATACTAACAGAGAGATTTGCTCCATTCTCTTTGGAATAACAGGACATGCTGTATAGATACAGGCAGTAGGTTTGC
TCTGTACCCATGTGTACAGCCTACCCATGCAGGGACTGGGATTCGAGGACTTCCAGGCGCATAGGGTAGAACCAA
ATGATAGGGTAGGAGCATGTGTTCTTTAGGGCCTTGTAAGGCTGTTTCCTTTTGCATCTGGAACTGACTATATAA
TTGTCTTCAATGAAGACTAATTCAATTTTGCATATAGAGGAGCCAAAGAGAGATTTCAGCTCTGTATTTGTGGTA
TCAGTTTGGAAAAAAAATCTGATACTCCATTTGATTATTGTAAATATTTGATCTTGAATCACTTGACAGTGTTTG
TTTGAATTGTGTTTGTTTTTTCCTTTGATGGGCTTAAAAGAAATTATCCAAAGGGAGAAAGAGCAGTATGCCACT
TCTTAAAACAGAACAAAACAAAAAAAAAAAAAAAAAAAA

FIGURE 598

MIDTLRPVPFASEMAISKTVAWLNEQLELGNERLLLMDCRPQELYESSHIESAINVAIPGIMLRRLQKGNLPVRA
LFTRGEDRDRFTRRCGTDTVVLYDESSSDWNENTGGESVLGLLLKKLKDEGCRAFYLEGGFSKFQAEFSLHCETN
LDGSCSSSSPPLPVLGLGGLRISSDSSSDIESDLDRDPNSATDSDGSPLSNSQPSFPVEILPFLYLGCAKDSTNL
DVLEEFGIKYILNVTPNLPNLFENAGEFKYKQIPISDHWSQNLSQFFPEAISFIDEARGKNCGVLVHCLAGISRS
VTVTVAYLMQKLNLSMNDAYDIVKMKKSNISPNFNFMGQLLDFERTLGLSSPCDNRVPAQQLYFTTPSNQNVYQV
DSLQST

FIGURE 599

CCGGCGGCGCCTCAGGTCGCGGGGCGCCTAGGCCTGGGTTGTCCTTTGCATCTGCACGTGTTCGCAGTCGTTTCC
GCG**ATG**CTGCCTCTGCTGCGCTGCGTGCCCCGTGTGCTGGGCTCCTCCGTCGCCGGCCTCCGCGCTGCCGCGCCC
GCCTCGCCTTTCCGGCAGCTCCTGCAGCCGGCACCCCGGCTGTGCACCCGGCCCTTCGGGCTGCTCAGCGTGCGC
GCAGGTTCCGAGCGGCGGCCGGGCCTCCTGCGGCCTCGCGGACCCTGCGCCTGTGGCTGTGGCTGCGGCTCGCTG
CACACCGACGGAGACAAAGCTTTTGTTGATTTCCTGAGTGATGAAATTAAGGAGGAAAGAAAAATTCAGAAGCAT
AAAACCCTCCCTAAGATGTCTGGAGGTTGGGAGCTGGAACTGAATGGGACAGAAGCGAAATTAGTGCGGAAAGTT
GCCGGGGAAAAAATCACGGTCACTTTCAACATTAACAACAGCATCCCACCAACATTTGATGGTGAGGAGGAACCC
TCGCAAGGGCAGAAGGTTGAAGAACAGGAGCCTGAACTGACATCAACTCCCAATTTCGTGGTTGAAGTTATAAAG
AATGATGATGGCAAGAAGGCCCTTGTGTTGGACTGTCATTATCCAGAGGATGAGGTTGGACAAGAAGACGAGGCT
GAGAGTGACATCTTCTCTATCAGGGAAGTTAGCTTTCAGTCCACTGGCGAGTCTGAATGGAAGGATACTAATTAT
ACACTCAACACAGATTCCTTGGACTGGGCCTTATATGACCACCTAATGGATTTCCTTGCCGACCGAGGGGTGGAC
AACACTTTTGCAGATGAGCTGGTGGAGCTCAGCACAGCCCTGGAGCACCAGGAGTACATTACTTTTCTTGAAGAC
CTCAAGAGTTTTGTCAAGAGCCAG**TAG**AGCAGACAGATGCTGAAAGCCATAGTTTCATGGCAGGCTTTGGCCAGT
GAACAAATCCTACTCTGAAGCTAGACATGTGCTTTGAAATGATTATCATCCTAATATCATGGGGGAAAAAATACC
AAATTTAAATTATATGTTTTGTGTTCTCATTTATTATCATTTTTTTCTGTACAAATCTATTATTTCTAGATTTTT
GTATAACATGATAGACATAAAATTGGTTTATCTCCTCCGCTGAGTCTTCCTAGAAGTACCTGCTGGGTTCTCAGT
TCCAGTTCCCATCCTTTGATTGATCACTCTCCCTGACATCCACCTGTATGACTTTGTCACCAAATGCTGTCTTCT
CTTTCTCCAATCAAGAAATAATAATCCCTCGAGTTTACAAAACAAAAAAAAAAAAAA

FIGURE 600

MLPLLRCVPRVLGSSVAGLRAAAPASPFRQLLQPAPRLCTRPFGLLSVRAGSERRPGLLRPRGPCACGCGCGSLH
TDGDKAFVDFLSDEIKEERKIQKHKTLPKMSGGWELELNGTEAKLVRKVAGEKITVTFNINNSIPPTFDGEEEPS
QGQKVEEQEPELTSTPNFVVEVIKNDDGKKALVLDCHYPEDEVGQEDEAESDIFSIREVSFQSTGESEWKDTNYT
LNTDSLDWALYDHLMDFLADRGVDNTFADELVELSTALEHQEYITFLEDLKSFVKSQ

FIGURE 601

GTAACCGCTACTCCCGGACACCAGACCACCGCCTTCCGTACACAGGGGCCCGCATCCCACCCTCCCGGACCTAAG
AGCCTGGGTCCCCTGTTTCCGGAGGTCCGCTTCCCGGCCCCCAGATTCTGGCATCCCAGCCCTCAGTGTCCAAGA
CCCAGGCAGCCCGGGTCCCCGCCTCCCGGATCCAGGCGTCCGGGATCTGCGCCACCAGAACCTAGCCTCCTGCAG
ACCTCCGCCATCTGGGGGCACTCAACCTCCTGGAGCCAAGGGCCCCACGTCCCACCCAGAGAAACTCTCGTATTC
CCAGCTCCTAGGGCCAAGGAACCCGGGCGCTCCGAACTCCCAGCTTTCGGACATCTGGCACACGGGGCAGAGCAG
AGAAGCTCAGCGCCCAGCCTGGGGAATTTAAACACTCCAGCTTCCAAGAGCCAAGGAACTTCAGTGCTGTGAACT
CACAACTCTAAGGAGCCCTCCAAAGTTCCAGTCTCCAGGTGCTGTTACTCAACTCAGTCCTAGGAACGTCGGGTC
CTGGGAAGGAGCCCAAGCGCTCCCAGCCAGCTTCCAGGCGCTAAGAAACCCCGGTGCTTCCCATC**ATG**GTGGCCG
ATCCTCCTCGAGACTCCAAGGGGCTCGCAGCGGCGGAGCCCACCGCCAACGGGGGCCTGGCGCTGGCCTCCATCG
AGGACCAAGGCGCGGCAGCAGGCGGCTACTGCGGTTCCCGGGACCAGGTGCGCCGCTGCCTTCGAGCCAACCTGC
TTGTGCTGCTGACAGTGGTGGCCGTGGTGGCCGGCGTGGCGCTGGGACTGGGGGTGTCGGGGGCCGGGGGTGCGC
TGGCGTTGGGCCCGGAGCGCTTGAGCGCCTTCGTCTTCCCGGGCGAGCTGCTGCTGCGTCTGCTGCGGATGATCA
TCTTGCCGCTGGTGGTGTGCAGCTTGATCGGCGGCGCCGCCAGCCTGGACCCCGGCGCGCTCGGCCGTCTGGGCG
CCTGGGCGCTGCTCTTTTTCCTGGTCACCACGCTGCTGGCGTCGGCGCTCGGAGTGGGCTTGGCGCTGGCTCTGC
AGCCGGGCGCCGCCTCCGCCGCCATCAACGCCTCCGTGGGAGCCGCGGGCAGTGCCGAAAATGCCCCCAGCAAGG
AGGTGCTCGATTCGTTCCTGGATCTTGCGAGAAATATCTTCCTTCCAACCTGGTGTCAGCAGCCTTTCGCTCAT
ACTCTACCACCTATGAAGAGAGGAATATCACCGGAACCAGGGTGAAGGTGCCCGTGGGGCAGGAGGTGGAGGGGA
TGAACATCCTGGGCTTGGTAGTGTTTGCCATCGTCTTTGGTGTGGCGCTGCGGAAGCTGGGGCCTGAAGGGGAGC
TGCTTATCCGCTTCTTCAACTCCTTCAATGAGGCCACCATGGTTCTGGTCTCCTGGATCATGTGGTACGCCCCTG
TGGGCATCATGTTCCTGGTGGCTGGCAAGATCGTGGAGATGGAGGATGTGGGTTTACTCTTTGCCCGCCTTGGCA
AGTACATTCTGTGCTGCCTGCTGGGTCACGCCATCCATGGGCTCCTGGTACTGCCCCTCATCTACTTCCTCTTCA
CCCGCAAAAACCCCTACCGCTTCCTGTGGGGCATCGTGACGCCGCTGGCCACTGCCTTTGGGACCTCTTCCAGTT
CCGCCACGCTGCCGCTGATGATGAAGTGCGTGGAGGAGAATAATGGCGTGGCCAAGCACATCAGCCGTTTCATCC
TGCCCATCGGCGCCACCGTCAACATGGACGGTGCCGCGCTCTTCCAGTGCGTGGCCGCAGTGTTCATTGCACAGC
TCAGCCAGCAGTCCTTGGACTTCGTAAAGATCATCACCATCCTGGTCACGGCCACAGCGTCCAGCGTGGGGGCAG
CGGGCATCCCTGCTGGAGGTGTCCTCACTCTGGCCATCATCCTCGAAGCAGTCAACCTCCCGGTCGACCATATCT
CCTTGATCCTGGCTGTGGACTGGCTAGTCGACCGGTCCTGTACCGTCCTCAATGTAGAAGGTGACGCTCTGGGGG
CAGGACTCCTCCAAAATTATGTGGACCGTACGGAGTCGAGAAGCACAGAGCCTGAGTTGATACAAGTGAAGAGTG
AGCTGCCCCTGGATCCGCTGCCAGTCCCCACTGAGGAAGGAAACCCCCTCCTCAAACACTATCGGGGGCCCGCAG
GGGATGCCACGGTCGCCTCTGAGAAGGAATCAGTCATG**TAA**ACCCCGGGAGGGACCTTCCCTGCCCTGCTGGGGG
TGCTCTTTGGACACTGGATTATGAGGAATGGATAAATGGATGAGCTAGGGCTCTGGGGGTCTGCCTGCACACTCT
GGGGAGCCAGGGGCCCCAGCACCCTCCAGGACAGGAGATCTGGGATGCCTGGCTGCTGGAGTACATGTGTTCACA
AGGGTTACTCCTCAAAACCCCCAGTTCTCACTCATGTCCCCAACTCAAGGCTAGAAAACAGCAAGATGGAGAAAT
AATGTTCTGCTGCGTCCCCACCGTGACCTGCCTGGCCTCCCCTGTCTCAGGGAGCAGGTCACAGGTCACCATGGG
GAATTCTAGCCCCCACTGGGGGGATGTTACAACACCATGCTGGTTATTTTGGCGGCTGTAGTTGTGGGGGGATGT
GTGTGTGCACGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTCTGTGACCTCCTGTCCCCATGGTACGTC
CCACCCTGTCCCCAGATCCCCTATTCCCTCCACAATAACAGAAACACTCCCAGGGACTCTGGGGAGAGGCTGAGG
ACAAATACCTGCTGTCACTCCAGAGGACATTTTTTTTAGCAATAAAATTGAGTGTCAACTATTTAAAAAAAAAAA
AAAAAA

FIGURE 602

MVADPPRDSKGLAAAEPTANGGLALASIEDQGAAAGGYCGSRDQVRRCLRANLLVLLTVVAVVAGVALGLGVSGA
GGALALGPERLSAFVFPGELLLRLLRMIILPLVVCSLIGGAASLDPGALGRLGAWALLFFLVTTLLASALGVGLA
LALQPGAASAAINASVGAAGSAENAPSKEVLDSFLDLARNIFPSNLVSAAFRSYSTTYEERNITGTRVKVPVGQE
VEGMNILGLVVFAIVFGVALRKLGPEGELLIRFFNSFNEATMVLVSWIMWYAPVGIMFLVAGKIVEMEDVGLLFA
RLGKYILCCLLGHAIHGLLVLPLIYFLFTRKNPYRFLWGIVTPLATAFGTSSSSATLPLMMKCVEENNGVAKHIS
RFILPIGATVNMDGAALFQCVAAVFIAQLSQQSLDFVKIITILVTATASSVGAAGIPAGGVLTLAIILEAVNLPV
DHISLILAVDWLVDRSCTVLNVEGDALGAGLLQNYVDRTESRSTEPELIQVKSELPLDPLPVPTEEGNPLLKHYR
GPAGDATVASEKESVM

FIGURE 603

GGGATTTTTAAAAAAATCAAAATACAAATCCAACTTTTTGAGTTTTCGTTGTCATTGCTCTTATCTTTCCTGAGTC
ACTTCCCATTTTCCAAACTCAGCAACCCCAGTTTGCGAGTCTGGTTTCATGAACCTTTGTAAGGTGTTTGGTGCG
GTCACRGTGTATACTTGCCGTGTAGTATTTGACTCAGCGCGATCTGCCTTGAGTCATTTTACCGCGGCCATTTAC
TACTGCCGTTGAGCCCTGTCCACGCCTTGGGAGTGTTGATATGTTGAGAGTTTTCTGTCTGGCTGRGGAGGGATC
ATTTAGTTTTTGCGGACGTATGTTGCACTGAGGATTTAGGGAGAGAGCAAGATTTCTGTTGAGGAGGTTCAGAAG
TATAAGGAATCGGGAGAGTAGATAGGAGTGAAGCATTTGGCAGCGTAAAGAAGCTTGGCTTAGCTTTAATGGATT
AGGGAGAGATTGCTATCTAGCATTATTACATGTTATTGTTCTCTTTGCTATTTTATACACCTAGAACAACCTTTC
CCTCGGGGTTAACAAACATCTTCAACTCTGTTTTCTGTATGGCTCCTGACTCTTACCTTTGTTTTAGGAGGCTTC
CCTCTTCAGAGGAAACTGGGAGAAGCCAATTTCCACTGCTTCTTTTTCCTGTGCCTTTTTAACACTCAAACCCAG
AACACTTAATCCTCTGCAGCTCGTGCAAAAATTCAGTCTGTAATTTAAAATGTGTGCACGGTACACTGCTGACCA
TGGGCATGTCTATTGTTTGTATCTGTAATGTGTATGTCCATTTCAGTGTTGTCTGTTTAGTATGCAGGTGATAG
ACTAGAGAACAAGACCTCTGTCTCCGTAGCATCCTGGAGCAGTCTGAATGCCAGA**ATG**GATAACCGTTTTGCTAC
AGCATTTGTAATTGCTTGTGTGCTTAGCCTCATTTCCACCATCTACATGGCAGCCTCCATTGGCACAGACTTCTG
GTATGAATATCGAAGTCCAGTTCAAGAAAATTCCAGTGATTTGAATAAAAGCATCTGGGATGAATTCATTAGTGA
TGAGGCAGATGAAAAGACTTATAATGATGCACTTTTTCGATACAATGGCACAGTGGGATTGTGGAGACGGTGTAT
CACCATACCCAAAAACATGCATTGGTATAGCCCACCAGAAAGGACAGAGTCATTTGATGTGGTCACAAAATGTGT
GAGTTTCACACTAACTGAGCAGTTCATGGAGAAATTTGTTGATCCCGGAAACCACAATAGCGGGATTGATCTCCT
TAGGACCTATCTTTGGCGTTGCCAGTTCCTTTTACCTTTTGTGAGTTTAGGTTTGATGTGCTTTGGGGCTTTGAT
CGGACTTTGTGCTTGCATTTGCCGAAGCTTATATCCCACCATTGCCACGGGCATTCTCCATCTCCTTGCAGGTCT
GTGTACACTGGGCTCAGTAAGTTGTTATGTTGCTGGAATTGAACTACTCCACCAGAAACTAGAGCTCCCTGACAA
TGTATCCGGTGAATTTGGATGGTCCTTCTGCCTGGCTTGTGTCTCTGCTCCCTTACAGTTCATGGCTTCTGCTCT
CTTCATCTGGGCTGCTCACACCAACCGGAAAGAGTACACCTTAATGAAGGCATATCGTGTGGCA**TGA**GCAAGAAA
CTGCCTGCTTTACAATTGCCATTTTTATTTTTTTAAAATAATACTGATATTTTCCCCACCTCTCAATTGTTTTTA
ATTTTTATTTGTGGATATACCATTTTATTATGAAATCTATTTTATTTATACACATTCACCACTAAATACACACT
TAATACCACTAAAATTTATGTGGTTTACTTTAAGCGATGCCATCTTTCAAATAAACTAATCTAGGTCTAGACAGA
AAGAAATGGATAGAGACTTGACACAAATTTATGAAAGAAAATTGGGAGTAGGAATGTGACCGAAAACAAGTTGTG
CTAATGTCTGTTAGACTTTTCAGTAAAACTAAAGTAACTGTATCTGTTCAACTAAAAACTCTATATTAGTTTCTT
TGGGAAACCTCTCATCGTCAAAACTTTATGTTCACTTTGCTGTTGTAGATAGCCAGTCAACCAGCAGTATTAGTG
CTGTTTTCAAAGATTTAAGCTCTATAAAATTGGGAAATTATCTAAGATCATTTTCCCTAAGCATTGACACATAGC
TTCATCTGAGGTGAGATATGGCAGCTGTTTGTATCTGCACTGTGTCTGTCTACAAAAAGTGAAAAATACAGTGTT
TACTTGAAATTTTAACTTTGTAACTGCAAGAATTCCAGTTCAGCCGGGCGAGGATTAGTATTATTTTTAACTCTC
CGTAAGATTTTCAGTACCACCAAATTGTTTTGGATTTTTTTTCTTTCCTCTTCACATACCAGGGTTATTAAAAGT
GTGCTTTCTTTTTACATTATATTACAGTTACAAGGTAAAATTCCTCAACTGCTATTTATTTATTCCAGCCCAGTA
CTATAAAGAACGTTTCACCATAATGACCCTCCAGAGCTGGGAAACCTACCACAAGATCTAAAGTTCTGGCTGTCC
ATTAACCTCCAACTATGGTCTTTATTTCTTGTGGTAATATGATGTGCCTTTCCTTGCCTAAATCCCTTCCTGGTG
TGTATCAACATTATTTAATGTCTTCTAATTCAGTCATTTTTTTATAAGTATGTCTATAAACATTGAACTTTAAAA
AACTTATTTATTTATTCCACTACTGTAGCAATTGACAGATTAAAAAAATGTAACTTCATAATTTCTTACCATAAC
CTCAATGTCTTTTTTAAAAAATAAAATTAAAAATGAAAGAGAAA

FIGURE 604

MDNRFATAFVIACVLSLISTIYMAASIGTDFWYEYRSPVQENSSDLNKSIWDEFISDEADEKTYNDALFRYNGTV
GLWRRCITIPKNMHWYSPPERTESFDVVTKCVSFTLTEQFMEKFVDPGNHNSGIDLLRTYLWRCQFLLPFVSLGL
MCFGALIGLCACICRSLYPTIATGILHLLAGLCTLGSVSCYVAGIELLHQKLELPDNVSGEFGWSFCLACVSAPL
QFMASALFIWAAHTNRKEYTLMKAYRVA

FIGURE 605

GGCACGAGGCTGCTGTTTGTCTACTTCCTCCTGCTTCCCCGCCGCCGCCGCCGCCATC**ATG**AGGGAAATCGTGCA
CTTGCAGGCCGGGCAGTGCGGCAACCAAATCGGCGCCAAGTTTTGGGAGGTGATCAGCGATGAGCACGGCATCGA
CCCCACGGGCACCTACCACGGGGACAGCGACCTGCAGCTGGAACGCATCAACGTGTACTACAATGAGGCCACCGG
CGGCAAGTACGTGCCCCGCGCCGTGCTCGTGGATCTGGAGCCCGGCACCATGGACTCCGTGCGCTCGGGGCCCTT
CGGGCAGATCTTCCGGCCGGACAACTTCGTTTTCGGTCAGAGTGGTGCTGGGAACAACTGGGCCAAGGGGCACTA
CACAGAAGGCGCGGAGCTGGTGGACTCGGTGCTGGATGTTGTGAGAAAGGAGGCTGAGAGCTGTGACTGCCTGCA
GGGTTTCCAGCTGACCCACTCCCTGGGTGGGGGGACTGGGTCTGGGATGGGTACCCTCCTCATCAGCAAGATCCG
GGAGGAGTACCCAGACAGGATCATGAACACGTTTAGTGTGGTGCCTTCGCCCAAAGTGTCAGACACAGTGGTGGA
GCCCTACAACGCCACCCTCTCAGTCCACCAGCTCGTAGAAAACACAGACGAGACCTACTGCATTGATAACGAAGC
TCTCTACGACATTTGCTTCAGAACCCTAAAGCTGACCACGCCCACCTATGGTGACCTGAACCACCTGGTGTCTGC
TACCATGAGTGGGGTCACCACCTGCCTGCGCTTCCCAGGCCAGCTCAATGCTGACCTGCGGAAGCTGGCTGTGAA
CATGGTCCCGTTTCCCCGGCTGCACTTCTTCATGCCCGGCTTTGCCCCACTGACCAGCCGGGGCAGCCAGCAGTA
CCGGGCGCTGACCGTGCCCGAGCTCACCCAGCAGATGTTTGATGCCAAGAACATGATGGCTGCCTGCGACCCCCG
CCATGGCCGCTACCTGACGGTTGCCGCCGTGTTCAGGGGCCGCATGTCCATGAAGGAGGTGGATGAGCAAATGCT
TAATGTCCAAAACAAAAACAGCAGCTATTTTGTTGAGTGGATCCCCAACAATGTGAAAACGGCTGTCTGTGACAT
CCCACCTCGGGGGCTAAAAATGTCCGCCACCTTCATTGGCAACAGCACGGCCATCCAGGAGCTGTTCAAGCGCAT
CTCCGAGCAGTTCACGGCCATGTTCCGGCGCAAGGCCTTCCTGCACTGGTACACGGGCGAGGGCATGGACGAGAT
GGAGTTCACCGAGGCCGAGAGCAACATGAATGACCTGGTGTCCGAGTACCAGCAGTACCAGGATGCCACAGCCGA
GGAGGAGGGCGAGTTCGAGGAGGAGGCTGAGGAGGAGGTGGCC**TAG**AGCCTTCAGTCACTGGGGAAAGCAGGGAA
GCAGTGTGAACTCTTTATTCACTCCCAGCCTGTCCTGTGGCCTGTCCCACTGTGTGCACTTGCTGTTTTCCCTGT
CCACATCCATGCTGTACAGACACCACCATTAAAGCATTTTCATAGTGAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AA

FIGURE 606

MREIVHLQAGQCGNQIGAKFWEVISDEHGIDPTGTYHGDSDLQLERINVYYNEATGGKYVPRAVLVDLEPGTMDS
VRSGPFGQIFRPDNFVFGQSGAGNNWAKGHYTEGAELVDSVLDVVRKEAESCDCLQGFQLTHSLGGGTGSGMGTL
LISKIREEYPDRIMNTFSVVPSPKVSDTVVEPYNATLSVHQLVENTDETYCIDNEALYDICFRTLKLTTPTYGDL
NHLVSATMSGVTTCLRFPGQLNADLRKLAVNMVPFPRLHFFMPGFAPLTSRGSQQYRALTVPELTQQMFDAKNMM
AACDPRHGRYLTVAAVFRGRMSMKEVDEQMLNVQNKNSSYFVEWIPNNVKTAVCDIPPRGLKMSATFIGNSTAIQ
ELFKRISEQFTAMFRRKAFLHWYTGEGMDEMEFTEAESNMNDLVSEYQQYQDATAEEEGEFEEEAEEEVA

FIGURE 607

CTATCAATCTCCAGAGCTTTTTCTTTTTAAGTGTGAGCGAGTTTATTAGAGAAGTAAAGAGACCCAAGAGTGCCT
ACTCCATAGACAGAGCAGCCACTGTGACACTGTACCCATTAAACACTAACTCTCCATTGCCCCTCCAGCAACCCC
TAGCACCCACTGTCTACTTTCTGTCTCTATGTGGTTGTCTATTTGAGGGACATCACATAAGTGGAGTCATATATT
TGTCCTTTCATGTCTCCCTTATTTCATTTAGCATAACGTTTTCAAGGGTTTCCTGTGTTGTGAATATATCAGAAT
TTCATTCTCTTTTTAAGGTAGAATCATATCATTTTAAAACATTTCAGTTGGACCATCTAAGTTCAGTCCTTCATT
TTCAACAATTAAAAAACAGCCCTCAACCGGGTGCATCTCACGTTAGCTAGAGACAGAACTGGAGCTAGAAGTCAG
ATCTCTTACCAAAGTTGCCTTTCTTCTTCTGTGGGTAAGTGGGGCACCCTTGGGACGCTGTGCTGGGCGTACATG
GGTGCTTGATGAAGTTACTTGGTGGACTGATGTGATTGATGTCCAACATGTATGCAGGGACAGAGGCTATGGTCC
CTACAGAGCAGGCATGGAGAGAAGGAGAAATACATACGGGCAGGAGCCAGGAGAGGGAGGGTGTAGTGAGCAGAG
ACCGCGCCACTGCACTCCAGCCTGAGTGACAGAGTGAGAATCCATCTAAAAAATTGCTTACTAAAGAAGTGGTCT
CCTGAGGTCTTAAGACGTTCCTGGCAATGTCTTGAGTGGGTGGGAGAGAGCCTCCAGTCATTGAGCTGTGGAATT
TCAGAGGTGAGAACCACACCTAACCCCCAATTACTTTCCCTGTTTGCCTCAGTGACACAGCTGCAGGAACCCTG
GTGGGTGTTGTATTAAGTAAATTTGACCTTTATTCTTTGCAGATCTGTGAAATGTTGTCTTCTGAGGGGCCACGT
GTATCTGTAGTGCTGAGGACTCCTTGGGGCCTCTGAAGTCACAGAGAGAACCTGCAGGGTGGGGGACCAGTGTGT
GACAGCCCTGCTTTGCATTTTCTTTGAGAAGTGCTGTCATTTTGCATTTCTCTCCACCAGGGGAATCTTCAATCT
TGAGAGGTGTGATCATAACTTGCCTTGTTTCTTGTCGCTACAGAGAACGGAAGGCTCCCTTGATGGAACTTAGAC
AGCAAGGCCAGATGCACATCCCTGGAAGGACATCCATGTTCCGAGAAGAACAGATGATCCCTGTATTTCAAGACC
TCTGTGCACTTATTTATGAACCTGCCCTGCTCCCACAGAACACAGCAATTCCTCAGGCTAAGCTGCCGGTTCTTA
AATCCATCCTGCTAAGTTAATGTTGGGTAGAAAGAGATACAGAGGGGCTGTTGAATTTCCCACATACCCTCCTTC
CACCAAGTTGGAACATCCTTGGAAATTGGGAAGAGCACAAGAGGAGATCCAGGGCAAGGCCATTGGGATATTCTG
AAACTTGAATATTTTGTTTTGTGCAGAGATAAAGACCTTTTCCATGCACCCTCATACACAGAAACCAATTTTCTT
TTTTATACTCAATCATTTCTAGCGCATGGCCTGGTTAGAGGCTGGTTTTTTCTCTTTTCCTTTGGTCCTTCAAAG
GCTTGTAGTTTTGGGTAGTCCTTGTTCTTTGGAAATACACAGTGCTGACCAGACAGCCTCCCCCTGTCCCCTCTA
TGACCTCGCCCTCCACAAATGGGAAAACCAGACTACTTGGGAGCACCGCCTGTGAAATACCAACCTGAAGACACG
GTTCATTCAGGCAACGCACAAAACAGAAAATGAAGGTGGAACAAGCACATATGTTCTTCAACTGTTTTTGTCTAC
ACTCTTTCTCTTTTCCTCTACATGCTGAAGGCTGAAAGACAGGAAAGATGGTGCCATCAGCAAATATTATTCTTA
ATTGAAAACTTGAAATGTGTATGTTTCTTACTAATTTTTAAAAATGTATTCCTTGCCAGGGCAGGCAAGGTCGTC
ACGCCTGTAATCCCAGCACTTCAGGAGGCTGAGGTGGGCGGATC

FIGURE 608

ATCTCACGTTAGCTAGAGACAGAACTGGAGCTAGCAGTCAGATCTCTTACAAAGTTGCCTTTCTTCTTCTGTGGG
TAAGTGGGGCACCCTTGGGACGCTGTGCTGGGCGTACATGGGTGCTTGATGAAGTTACTTGGTGGACTGATGTGA
TTGATGTCCAACATGTATGCAGGGACAGAGGCTATGGTCCCTACAGAGCAGGCATGGAGAGAAGGAGAAATACAT
ACGGNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
NNNNNNNNNNNNNNNNNNNNNNNTTGCTTGCTAAAGAAGTGGTCTCC**TGA**GGTCTTAAGACGTTCCTGACAATGTCTT
GAGTGGGTGGGAGAGAGGCTGCAGTCATTGTGCTGTGGAATTTCAGAGGTGAGAACCACACCTAACCAAAATTAC
TTTCCCTGTTTGCCTCAGTGACACAGCTGCAGGAACCCTGGTGGGTGTTGTATTAAGTAAATTTGACCTTTATTC
TTTGCAGATCTGTGAAATGTTGTCTTCTGAGGGGCCACGTGTATCTGTAGTGCTGAGGACTCCTTGGGCCTCTGA
AGTCACAGAGAGAACCCTGCAGGGTGGGGGACCAGTGTGTGACAGCCCTGCTTTGCATTTTCTTTGAGAAGTGCT
GTCATTTTGCATTTCTCTCCACCAGGGCAATCTTCAATCTTGAGAGGTGTGATCATAACTTGCCTTGTTTCTTGT
CGCTACAGAGAACGGAAGGCTCCCTTGATGGAACTTAGACAGCAAGGCCAGATGCACATCCCTGGAAGGACATCC
ATGTTCCGAGAAGAACAGATGATCCCTGTATTTCAAGACCTCTGTGCACTTATTTATGAACCTGCCCTGCTCCCA
CAGAACACAGCAATTCCTCAGGCTAAGCTGCCGGTTCTTAAATCCATCCTGCTAAGTTAATGTTGGGTAGAAAGA
GATACAGAGGGGCTGTTGAATTTCCCACATACCCTCCTTCCACCAAGTTGGAACATCCTTGGAAATTGGAAGAGC
ACAAGAGGAGATCCAGGGCAAGGCCATTGGGATATTCTGAAACTTGAATATTTTGTTTGTGCAGAGATAAAGAC
CTTTTCCATGCACCCTCATACACAGAAACCAATTTTCTTTTTTATACTCAATCATTTCTAGCGCATGGCCTGGTT
AGAGGCTGGTTTTTTCTCTTTTCCTTTGGTCCTTCAAAGGCTTGTAGTTTTGGGTAGTCCTTGTTCTTTGGAAAT
ACACAGTGCTGACCAGACAGCCTCCCCCTGTCCCCTCTATGACCTCGCCCTCCACAAATGGGAAAACCAGACTAC
TTGGGAGCACCGCCTGTGAAATACCAACCTGAAGACACCGTTCATTCAGGCAACGCACAAAACAGAAAATGAAGG
TGGAACAAGCACAGATGTTCTTCAACTGTTTTTGTCTACACTCTTTCTCTTTTCCTCTACCATGCTGAAGGCTGA
AAGACAGGAAGATGGTGCCATCAGCAAATATTATTCTTAATTGAAAACTTGAAATGTGTATGTTTCTTACTAATT
TTTAAAAATGTATTCCTTGCCAGGCCTAGACAAGGATCGCTCACGCCTGTATATCCCAGCACTTCAGGTAGAGCT
GAGGTGGGCGGTATCGACCTGAGGTCAGGTAGCTTTGAGACCAGCCTGATGAAACNNNNNNNNNNNNNNNNNNNNN
NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
NNNNNNNNNNNNNNNNNNNNTAGGTTGTAGTGTAGCGGACCTCGCGCCACTGGCACTCCTAGCTCTGAGTGACTA
GAGTGAGAATCCATCTCAAAAAAACAAATAAACAAAATTGCTTGCTAAAGAAGTGGTCTCCTGAGGTCTTAAGAC
ATTCCTGACAGTGTCTTGAGTGGGTGGGAGAGAGGCTGCTGTCATTGCGCTGTGGAATTTCACAGATGAGAACCA
CGCCTAGCCAAAATCACTTTTCCTGTTTGCCTCAGTGACACAGCTGCAGGGACCCTCGTGGATGTTGTATTAAAT
AAATTTGACCTTTGCTCTTTGCAGATCTGTGAAATGTTGTCTTCTGAGGGGCCACATGCATCTATAGTGCTGAGG
ACTCCTTGGGCCTCTGAAGTCACAGAGAGAACCGAGCAGGTCTATGTTTTTGT

FIGURE 609

LTLARDRTGASSQISYKVAFLLLWVSGAPLGRCAGRTWVLDEVTWWTDVIDVQHVCRDRGYGPYRAGMERRRNTY
GXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXLLAKEVVS

FIGURE 610

AGTGCGCATCCGGACGTAGGAGGTGGAGGTTGTGGAATTCGCCGTTCGAAAGCAGGGACTAAAAGCCCCACTTCG
TCTTACGTTCCGAAAGGAAGGCGTCTGTTGAGCCTTTCTCTCAGTCGTGAGGGAGGCGTCGACGGCGTGCGGAAG
TCCTGAGTTGAGGCTTGCGGGATCCTTTCCGGAGAAAGCGCAGGCTAAAGCCGCAGGTGAAG**ATG**TCCAACTACG
TGAACGACATGTGGCCGGGCTCGCCGCAGGAGAAGGATTCGCCCTCGACCTCGCGGTCGGGCGGGTCCAGCCGGC
TGTCGTCGCGGTCTAGGAGCCGCTCTTTTTCCAGAAGCTCTCGGTCCCATTCCCGCGTCTCGAGCCGGTTTTCGT
CCAGGAGTCGGAGGAGCAAGTCCAGGTCCCGTTCCCGAAGGCGCCACCAGCGGAAGTACAGGCGCTACTCGCGGT
CATACTCGCGGAGCCGGTCGCGATCCCGCAGCCGCCGTTACCGAGAGAGGCGCTACGGGTTCACCAGGAGATACT
ACCGGTCTCCTTCGCGGTACCGGTCCCGGTCCCGTAGCAGGTCGCGCTCTCGGGGAAGGTCGTACTGCGGAAGGG
CGTACGCGATCGCGCGGGGACAGCGCTACTACGGCTTTGGTCGCACAGTGTACCCGGAGGAGCACAGCAGATGGA
GGGACAGATCCAGGACGAGGTCGCGGAGCAGAACCCCCTTTCGCTTAAGTGAAAAAGATCGAATGGAGCTGTTAG
AAATAGCAAAAACCAATGCAGCGAAAGCTCTAGGAACAACCAACATTGACTTGCCAGCTAGTCTCAGAACTGTTC
CTTCAGCCAAAGAAACAAGCCGTGGAATAGGTGTATCAAGTAATGGTGCAAAGCCTGAAGTAAGTATTCTAGGTT
TGTCGGAACAAAACTTTCAGAAAGCCAACTGTCAAATC**TGA**TTAGCCACTTATATCTTAGACTATACTTTTTGGG
AAGTCTAGAGATGTATATAATGTGCTAAATTCAAAGTAGCAAATCTGAAGATAGGCAATGTCAAACCCATGAAAA
TGGGAGATTAATGAGCTTTATTTGGCCGTGCATGGTGCCTCATGCCTGTAATGAGGCAGATGGCTTGAGTCCAGG
AGTTCAAGACTAGCCTGGGCAATGTGGCAAAACCGCGTGTTTACAAAAAATACAAAAATTAGCCAGGCATGGTGG
TGCATGCCTGTAGTCCCAGCTGTTTGGGAGGCTGAGGCAGGAGGATCTTTGAGCCTAGGATGCTAAGGTTGCAGT
GAGCCAAGATGGCACCATTGCACTCTAGCCTGGGCAGCAGAGCGAGACCCTGTCTCAAAAAATACATTTATTTTT
TTCATTTTCAGTTAACAGTGTACTCTTATAACACCGTTATTAGCTGGTACTTTGGTGATTTCTATTACTAGTTTT
TCTAAGCTATTTACAGAGTGTTTGTAGCTTTCATTTGCAGCATTATGTTCCCACAAATTCTGTACTCAGCATATA
CAGTATAGTTTATCTGCTCTATTTCTGTCTTATAGAAATCATGAATGTGGTCTGCAGACATTGATGAAGAAAATC
TGTTGGTAATTGATACATGGGCTAAAGCATCAGAGGTTTAATTTGAAGTTTATGTTCACACACTGAAAACTTAGT
TTTTTTGTTGGTAGATCCATGTGCATGCTAGAATTTGGGACAGGCACTATTTGCATAAAGTATTAAAGTCAATTT
TTAAACTAAGCAAAGGTACACGTTGTAACGGTGGGGCATCTGTGAAAAGATGTCCCTTTCATAATATATGCAAT
ATATTCCAGATGTTTTGAGAGATTACAGAAGAGGAGGCCTGCTTCACTTGCAGATAAGTTTATTATAATTCTCCA
GAAATGTGCAGGATGTGCATTAGCAAATTGCACTGTACTTTTCACTCCAGCCTGGGTGACAGAGCAAGACTCCCG
TCTCGGGGGCTT

FIGURE 611

MSNYVNDMWPGSPQEKDSPSTSRSGGSSRLSSRSRSRSFSRSSRSHSRVSSRFSSRSRRSKSRSRSRRRHQRKYR
RYSRSYSRSRSRSRSRRYRERRYGFTRRYYRSPSRYRSRSRSRSRSRGRSYCGRAYAIARGQRYYGFGRTVYPEE
HSRWRDRSRTRSRSRTPFRLSEKDRMELLEIAKTNAAKALGTTNIDLPASLRTVPSAKETSRGIGVSSNGAKPEV
SILGLSEQNFQKANCQI

FIGURE 612

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GGACGTAGGAGGTGGAGGTTGTGGAATTCGCCGTTCGAAAGCAGGGACTAAAAGCCCCACTTCGTCTTACGTTCC
GAAAGGAAGGCGTCTGTTGAGCCTTTCTCTCAGTCGTGAGGGAGGCGTCGACGGCGTGCGGAAGTCCTGAGTTGA
GGCTTGCGGGATCCTTTCCGGAGAAAGCGCAGGCTAAAGCCGCAGGTGAAGATGTCCAACTACGTGAACGACATG
TGGCCGGGCTCGCCGCAGGAGAAGGATTCGCCCTCGACCTCGCGGTCGGGCGGGTCCAGCCGGCTGTCGTCGCGG
TCTAGGAGCCGCTCTTTTTCCAGAAGCTCTCGGTCCCATTCCCGCGTCTCGAGCCGGTTTTCGTCCAGGAGTCGG
AGGAGCAAGTCCAGGTCCCGTTCCCGAAGGCGCCACCAGCGGAAGTACAGGCGCTACTCGCGGTCATACTCGCGG
AGCCGGTCGCGATCCCGCAGCCGCCGTTACCGAGAGAGGCGCTACGGGTTCACCAGGAGATACTACCGGTCTCCT
TCGCGGTACCGGTCCCGGTCCCGTAGCAGGTCGCGCTCTCGGGGAAGGTCGTACTGCGGAAGGGCGTACGCGATC
GCGCGGGGACAGCGCTACTACGGCTTTGGTCGCACAGTGTACCCGGAGGAGCACAGCAGATGGAGGGACAGATCC
AGGACGAGGTCGCGGAGCAGAACCCCCTTTCGCTTAAGTGAAAAAGATCGAATGGAGCTGTTAGAAATAGCAAAA
ACCAATGCAGCGAAAGCTCTAGGAACAACCAACATTGACTTGCCAGCTAGTCTCAGAACTGTTCCTTCAGCCAAA
GAAACAAGCCGTGGAATAGGTGTATCAAGTAATGGTGCAAAGCCTGAACTGTCGGAAAAGGTAACAGAAGATGGA
ACTCGAAATCCCAATGGAAAACCTACCCAGCAAAGAAGCATAGCTTTTAGCTCTAATAATTCTGTAGCAAAGCCA
ATACAAAAATCAGCTAAAGCTGCCACAGAAGAGGCATCTTCAAGATCACCAAAAATAGATCAGAAAAAAAGTCCA
TATGGACTGTGGATACCTATCTAAAAGAAGAAACTGATGGCTAAGTTTGCATGAAAACTGCACTTTATTGCAAG
TTAGTGTTTCTAGCATTATCCCATCCCTTTGAGCCATTCAGGGGTACTTGTGCATTTAAAAACCAACACAAAAAG
ATGTAAATACTTAACACTCAAATATTAACATTTTAGGTTTCTCTTGCAGATATGAGAGATAGCACAGATGGACCA
AAGGTTATGCACAGGTGGGAGTCTTTTGTATATAGTTGTAAATATTGTCTTGGTTATGTAAAAATGAAATTTTTT
AGACACAGTAATTGAACTGTATTCCTGTTTTGTATATTTAATAAATTTCTTGTTTTCATTCTTAAAAAAAAAAAA
AAAAAA
```

FIGURE 613

CTTTTTCTCCATCTCAGAACCTTCCTGCCGTCGCGTTTGCACCTCGCTGCTCCAGCCTCTGGGGCGCATTCCAAC
CTTCCAGCCTGCGACCTGCGGAGAAAAAAAATTACTTATTTTCTTGCCCCATACATACCTTGAGGCGAGCAAAAA
AATTAAATTTTAACC**ATG**AGGGAAATCGTGCACATCCAGGCTGGTCAGTGTGGCAACCAGATCGGTGCCAAGTTC
TGGGAGGTGATCAGTGATGAACATGGCATCGACCCCACCGGCACCTACCACGGGGACAGCGACCTGCAGCTGGAC
CGCATCTCTGTGTACTACAATGAAGCCACAGGTGGCAAATATGTTCCTCGTGCCATCCTGGTGGATCTAGAACCT
GGGACCATGGACTCTGTTCGCTCAGGTCCTTTTGGCCAGATCTTTAGACCAGACAACTTTGTATTTGGTCAGTCT
GGGGCAGGTAACAACTGGGCCAAAGGCCACTACACAGAGGGCGCCGAGCTGGTTGATTCTGTCCTGGATGTGGTA
CGGAAGGAGGCAGAGAGCTGTGACTGCCTGCAGGGCTTCCAGCTGACCCACTCACTGGGCGGGGGCACAGGCTCT
GGAATGGGCACTCTCCTTATCAGCAAGATCCGAGAAGAATACCCTGATCGCATCATGAATACCTTCAGTGTGGTG
CCTTCACCCAAAGTGTCTGACACCGTGGTCGAGCCCTACAATGCCACCCTCTCCGTCCATCAGTTGGTAGAGAAT
ACTGATGAGACCTATTGCATTGACAACGAGGCCCTCTATGATATCTGCTTCCGCACTCTGAAGCTGACCACACCA
ACCTACGGGGATCTGAACCACCTTGTCTCAGCCACCATGAGTGGTGTCACCACCTGCCTCCGTTTCCCTGGCCAG
CTCAATGCTGACCTCCGCAAGTTGGCAGTCAACATGGTCCCCTTCCCACGTCTCCATTTCTTTATGCCTGGCTTT
GCCCCTCTCACCAGCCGTGGAAGCCAGCAGTATCGAGCTCTCACAGTGCCGGAACTCACCCAGCAGGTCTTCGAT
GCCAAGGACATGATGGCTGCCTGTGACCCCCGCCACGGCCGATACCTCACCGTGGCTGCTGTCTTCCGTGGTCGG
ATGTCCATGAAGGAGGTCGATGAGCAGATGCTTAACGTGCAGAACAAGAACAGCAGCTACTTTGTGGAATGGATC
CCCAACAATGTCAAGACAGCCGTCTGTGACATCCCACCTCGTGGCCTCAAGATGGCAGTCACCTTCATTGGCAAT
AGCACAGCCATCCAGGAGCTCTTCAAGCGCATCTCGGAGCAGTTCACTGCCATGTTCCGCCGGAAGGCCTTCCTC
CACTGGTACACAGGCGAGGGCATGGACGAGATGGAGTTCACCGAGGCTGAGAGCAACATGAACGACCTCGTCTCT
GAGTATCAGCAGTACCAGGATGCCACCGCAGAAGAGGAGGAGGATTTCGGTGAGGAGGCCGAAGAGGAGGCC**TAA**

GGCAGAGCCCCCATCACCTCAGGCTTCTCAGTTCCCTTAGCCGTCTTACTCAACTGCCCCTTTCCTCTCCCTCAG
AATTTGTGTTTGCTGCCTCTATCTTGTTTTTTGTTTTTTCTTCTGGGGGGGGGTCTAGAACAGTGCCTGGCACAT
AGTAGGCGCTCAATAAATACTTGTTTGTTGAAAAAAAAAAAAAAAA

FIGURE 614

MREIVHIQAGQCGNQIGAKFWEVISDEHGIDPTGTYHGDSDLQLDRISVYYNEATGGKYVPRAILVDLEPGTMDS
VRSGPFGQIFRPDNFVFGQSGAGNNWAKGHYTEGAELVDSVLDVVRKEAESCDCLQGFQLTHSLGGGTGSGMGTL
LISKIREEYPDRIMNTFSVVPSPKVSDTVVEPYNATLSVHQLVENTDETYCIDNEALYDICFRTLKLTTPTYGDL
NHLVSATMSGVTTCLRFPGQLNADLRKLAVNMVPFPRLHFFMPGFAPLTSRGSQQYRALTVPELTQQVFDAKDMM
AACDPRHGRYLTVAAVFRGRMSMKEVDEQMLNVQNKNSSYFVEWIPNNVKTAVCDIPPRGLKMAVTFIGNSTAIQ
ELFKRISEQFTAMFRRKAFLHWYTGEGMDEMEFTEAESNMNDLVSEYQQYQDATAEEEEDFGEEAEEEA

FIGURE 615

TGTTCCGCGATCTTCTCAGGCTCTCCTAGCAGCATCCATCGCCGCCACCCTATCTTCACTGGCTTCACCTTCTCC
TTCTCTCTTCGTTGCTGAGCGACAAGCTTCCTAGCGCT**ATG**ACTGTCGTCTCCGTCCCGCAGCGGGAGCCGCTCG
TCCTGGGTGGCCGCCTTGCGCCGCTTGGCTTTTCCTCCCGAGGTTACTTTGGGGCCCTCCCGATGGTGACCACGG
CTCCGCCTCCTTTACCCCGGATCCCGGACCCCCGGGCACTGCCCCCGACCCTCTTCCTCCCTCATTTCCTAGGGG
GAGATGGCCCGTGTCTGACCCCCCAGCCTCGCGCTCCAGCAGCTCTGCCCAACCGCAGCCTCGCCGTGGCGGGAG
GCACTCCTCGGGCAGCGCCGAAGAAGCGGCGAAAGAAGAAGGTGCGGGCCAGCCCCGCAGGGCAGCTGCCCAGCC
GCTTCCACCAGTACCAGCAGCACCGGCCGAGTCTGGAGGGCGGCCGGAGCCCCGCGACCGGCCCGAGCGGAGCGC
AGGAGGTCCCGGGCCCGGCCGCCGCCTTGGCCCCGAGTCCTGCAGCCGCAGCCGGCACGGAGGGAGCCAGCCCCG
ACCTTGCCCCGCTGCGGCCCGCGGCTCCCGGCCAAACCCCCCTCAGGAAAGAGGTTTTAAAATCAAAGATGGGAA
AATCGGAGAAAATTGCCCTTCCCCATGGCCAGCTTGTTCATGGTATACACTTGTATGAGCAACCAAAGATAAACA
GACAGAAAAGCAAATATAACTTGCCACTAACCAAGATCACCTCTGCAAAAGAAATGAAAACAACTTTTGGCAGG
ATTCTGTTTCATCTGACAGAATTCAGAAGCAGGAAAAAAAGCCTTTTAAAAATACCGAGAACATTAAAAATTCGC
ATTTGAAGAAATCAGCATTTCTAACTGAAGTGAGCCAAAAGGAAAATTATGCTGGGGCAAAGTTTAGTGATCCAC
CTTCTCCTAGTGTTCTTCCAAAGCCTCCTAGTCACTGGATGGGAAGCACTGTTGAAAATTCCAACCAAAACAGGG
AGCTGATGGCAGTACACTTAAAAACCCTCCTCAAAGTTCAAACT**TAG**ATTTCAGATTTCAGTATGTGTGTAAAAC
ATAATTTTTCCCATATCCCTGGACTCTTGAGAAAATTGGTACAGAAATGGAAATTTGCCTTGTTGCAACATACAA
TTGCAAAGATGAGTTTAAAAAATTACATACAAACAGCTTGTATTATATTTTATATTTTGTAAATACTGTATACC
ATGTATTATGTGTATATTGTTCATACTTGAGAGGTATATTATAGTTTTGTTATGAAAGTATGTATTTTGCCCTGC
CCACATTGCAGGTGTTTTGTATATATACAATGGATAAATTTTAAGTGTGTGCTAAGGCACATGGAAGACCGATTT
TATTTGCACAAGGTACTGAGATTTTTTTCAAGAAACAGCTGTCAAATCTCAAGGTGAAGATCTAAATGTGAACAG
TTTACTAATGCACTACTGAAGTTTAAATCTGTGGCACAATCAATGTAAGCATGGGGTTTGTTTCTCTAAATTGAT
TTGTAATCTGAAATTACTGAACAACTCCTATTCCCATTTTTGCTAAACTCAATTTCTGGTTTTGGTATATATCCA
TTCCAGCTTAATGCCTCTAATTTTAATGCCAACAAAATTGGTTGTAATCAAATTTTAAAATAATAATAATTTGGC
CCCCCCTTTTAAAATAGTCTTGACTCTTTGTGTGTGACTGTTTCTCATGTTTGAATGTGTGACTAGGAGATGATT
TTGTGTGGTTGGATTTTTTTGACTTCTACTTTACTGGCTGAGTGTGAGCCGCCATGCCTGGCCATAATCTACATT
TTCTTACCAGGAGCAGCATTGAGGTTTTTGAGCATAGTACTTGACTACTCTAGAGGCTGAGACGGGAGCATCTCT
TGAGCCTGAGAAGTGGAGATTGCAATTGAGCTAGGATCAGGCCACTGCACTCCAGCCTGGGTAACAGACGCTGTC
TCAAAAAAAAGGCCAAGAGAAAGTAAGGGAGACAGA

FIGURE 616

MTVVSVPQREPLVLGGRLAPLGFSSRGYFGALPMVTTAPPPLPRIPDPRALPPTLFLPHFLGGDGPCLTPQPRAP
AALPNRSLAVAGGTPRAAPKKRRKKKVRASPAGQLPSRFHQYQQHRPSLEGGRSPATGPSGAQEVPGPAAALAPS
PAAAAGTEGASPDLAPLRPAAPGQTPLRKEVLKSKMGKSEKIALPHGQLVHGIHLYEQPKINRQKSKYNLPLTKI
TSAKRNENNFWQDSVSSDRIQKQEKKPFKNTENIKNSHLKKSAFLTEVSQKENYAGAKFSDPPSPSVLPKPPSHW
MGSTVENSNQNRELMAVHLKTLLKVQT

FIGURE 617A

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AGAGATGGGTCTCGCCATCACCATGTTGCCCAGTCTGGTCTCCAACTCCTGGGCTCAAGCGATCCTCCTGCCTTG
GTCTCCCAAAGTGCTGGGATTACAGGTGTGAGCCCCCACACCCGGCCTGAGTGAGTGGGTTCTGAATGGTGACTG
TTGTTGTCCATAGCCTTCCCCCTGCTTCTGAGAGTGGAGTCCCTCCCCTCATGTTGGAGACCTCCCAAGGTCCAT
GTGGTCCTATAGGGGCTGTTCAGCCTCCCTAGCCCCTTAACGTGTCAGGTAATACTGTATATATTCCATGAAATG
TGAATAATTAGTTATATAATTCCTAAGCACTTATTTTAAAAAACAGCAATGTGATGCTTAACTCTTCCCACCTCT
GTTCCTGTCCCCCTTAGAAAACCACTGATAACTCTTTTTTTTTTTGAGACGGAGTCTTGCCCTGTCGCCCAGGCT
GGAGTGTAGTGGCCTGATCTCGGCTCGGCTCATTGTAACCTCCGCCTCGGGTTTGAGCGATTCTCCTGCCTCAGC
CTCCTGAGTAGCTGGGATTATAGGCGTGCACCACCACGCCTGGCTAATTTTTTGTATCTTTAGTAGGGACGGGTT
TCACCATGTTGGCCAGAGTGGTCTTGAACTCCTGACCTTGTGATCCGCTCGCCTCAGCCTCCCAAAGTGCTGGGA
TTACAGGCATGAGCCACCGTGCCTGTCCTAGAACCACTGGTAACTCTTAACTGXXXAGTGTTCTAAGAACGGAAG
CATCTGGGCTGG**ATG**GAATTTAGCATCAAGCAGAGTCCCCTTTCTGTTCAGAGTGTTGTAAAGTGCATAAAGATG
AAGCAGGCACCAGAAATCCTCGGCAGTGCCAACGGGAAGACTCCGAGCTGCGAGGTGAACCGCGAGTGTTCTGTG
TTCCTCAGCAAAGCCCAGCTCTCCAGTAGCCTGCAGGAGGGGGTCATGCAGAAGTTTAACGGCCACGACGCCCTG
CCCTTTATTCCAGCCGACAAGCTGAAAGATCTTACTTCCCGGGTGTTTAATGGAGAACCCGGCGCACACGATGCC
AAACTGCGTTTTGAGTCCCAGGAAATGAAAGGGATTGGGACACCCCCTAACACTACCCCTATCAAAAATGGCTCT
CCAGAAATTAAGCTGAAAATCACCAAAACATACATGAATGGGAAGCCTCTCTTTGAATCTTCCATTTGTGGTGAC
AGTGCTGCTGATGTGTCTCAGTCAGAAGAAAATGGACAAAAACCAGAAAACAAGGCGAGAAGGAACAGGAAGAGG
AGCATAAAATATGACTCCTTGCTGGAGCAGGGCCTTGTCGAAGCAGCTCTTGTGTCTAAGATCTCAAGTCCTTCA
GATAAAAAGATTCCAGCTAAGAAAGAGTCTTGTCCAAACACTGGAAGAGACAAAGACCACCTGTTGAAATACAAC
GTTGGTGATTTGGTGTGGTCCAAAGTGTCGGGTTACCCTTGGTGGCCTTGCATGGTTTCTGCAGATCCACTCCTT
CACAGCTATACCAAACTTAAAGGTCAGAAAAAGAGTGCACGCCAGTATCACGTACAGTTCTTTGGTGACGCCCCA
GAAAGAGCTTGGATATTTGAGAAGAGCCTCGTAGCTTTTGAAGGAGAAGGACAGTTTGAAAAATTATGCCAGGAA
AGTGCCAAGCAGGCACCCACGAAAGCTGAGAAAATTAAGCTATTGAAACCAATTTCAGGGAAATTGAGGGCCCAG
TGGGAAATGGGCATTGTTCAAGCAGAAGAAGCTGCAAGCATGTCAGTGGAGGAGCGGAAAGCCAAGTTCACCTTT
CTCTATGTGGGGGACCAGCTTCATCTCAACCCTCAAGTAGCCAAGGAGGCTGGCATTGCTGCAGAGTCTTTGGGA
GAAATGGCAGAATCCTCAGGAGTCAGTGAAGAAGCTGCTGAAAACCCCAAGTCTGTGAGAGAAGAGTGCATTCCC
ATGAAGAGAAGGCGGAGGGCCAAACTGTGTAGCTCTGCAGAGACCCTGGAGAGTCACCCCGACATAGGGAAGAGT
ACTCCTCAAAAGACGGCAGAGGCTGACCCCAGAAGAGGAGTAGGGTCTCCTCCTGGGAGGAAGAAGACCACAGTC
TCCATGCCACGAAGCAGGAAGGGAGATGCAGCATCCCAGTTTTTGGTCTTCTGTCAAAAACACAGGGATGAGGTG
GTAGCTGAGCACCCAGATGCTTCAGGTGAGGAGATTGAAGAGCTGCTCAGGTCACAGTGGAGTCTGCTGAGTGAG
AAGCAGAGAGCACGCTACAACACCAAGTTTGCCCTGGTGGCCCCTGTCCAGGCTGAAGAAGACTCTGGTAATGTA
AATGGGAAAAAAGAAACCACACAAAGAGGATACAGGACCCTACAGAAGATGCTGAAGCTGAGGACACACCCAGG
AAAAGACTCAGGACGGACAAGCACAGTCTTCGGAAGAGAGACACAATCACTGACAAAACGGCCAGAACAAGCTCT
TACAAGGCCATGGAGGCAGCCTCCTCGCTCAAGAGCCAGGCAGCAACGAAAAATCTGTCTGATGCATGTAAACCA
CTGAAGAAGCGAAATCGGGCTTCCACGGCAGCATCTTCAGCTCTTGGGTTTAGCAAAAGTTCATCTCCTTCTGCA
TCCTTAACTGAGAATGAGGTCTCGGACAGCCCGGGAGACGAGCCCTCGGAGTCCCCATACGAAAGTGCAGACGAA
ACACAAACTGAAGTATCTGTCTCATCCAAAAAGTCTGAGCGAGGAGTGACTGCCAAAAAGGAGTATGTGTGCCAG
CTGTGTGAGAAGCCGGGCAGCCTCCTGCTCTGTGAAGGACCCTGCTGCGGAGCTTTCCACCTCGCCTGCCTTGGG
CTTTCCCGGAGGCCAGAAGGGAGGTTCACCTGCAGCGAGTGTGCCTCAGGGATTCACTCATGTTTCGTGTGTAAA
GAGAGCAAGACAGATGTTAAGCGCTGTGTGGTAACTCAGTGTGGAAAATTTTACCATGAGGCTTGTGTGAAAAAA
TACCCTCTGACTGTATTTGAGAGCCGAGGTTTCCGCTGCCCCCTCCACAGCTGTGTGAGCTGCCATGCTTCCAAC
CCTTCAAACCCAAGGCCGTCAAAAGGTAAAATGATGCGGTGTGTCCGCTGCCCCGTTGCCTATCACAGCGGGGAT
GCTTGTCTGGCAGCAGGATGCTCAGTGATCGCCTCCAACAGCATCATCTGCACTGCCCACTTCACTGCTCGGAAG
GGGAAGCGACACCACGCCCACGTCAACGTGAGCTGGTGCTTCGTGTGCTCCAAAGGGGGGAGCCTTCTGTGCTGT
GAGTCCTGCCCAGCGGCCTTCCACCCTGACTGCCTGAACATCGAGATGCCTGACGGCAGCTGGTTCTGCAATGAC
TGCAGGGCTGGGAAGAAGCTGCACTTCCAGGATATCATTTGGGTGAAACTTGGGAACTACAGATGGTGGCCGGCA
GAAGTTTGCCATCCCAAAAATGTTCCCCCAAATATTCAGAAAATGAAGCACGAGATTGGAGAATTCCCTGTGTTT
TTCTTTGGGTCTAAAGATTATTACTGGACGCATCAGGCGCGAGTGTTCCCGTACATGGAGGGGGACCGGGGCAGC
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FIGURE 617B

CGCTACCAGGGGGTCAGAGGGATCGGAAGAGTCTTCAAAAACGCACTGCAAGAAGCTGAAGCTCGTTTTCGTGAA
ATTAAGCTTCAGAGGGAAGCCCGAGAAACACAGGAGAGCGAGCGCAAGCCCCCACCATACAAGCACATCAAGGTG
AATAAGCCTTACGGGAAAGTCCAGATCTACACAGCGGATATTTCAGAAATCCCTAAGTGCAACTGCAAGCCCACA
GATGAGAATCCTTGTGGCTTTGATTCGGAGTGTCTGAACAGGATGCTGATGTTTGAGTGCCACCCGCAGGTGTGT
CCCGCGGGCGAGTTCTGCCAGAACCAGTGCTTCACCAAGCGCCAGTACCCAGAGACCAAGATCATCAAGACAGAT
GGCAAAGGGTGGGGCCTGGTCGCCAAGAGGGACATCAGAAAGGGAGAATTTGTTAACGAGTACGTTGGGGAGCTG
ATCGACGAGGAGGAGTGCATGGCGAGAATCAAGCACGCACACGAGAACGACATCACCCACTTCTACATGCTCACT
ATAGACAAGGACCGTATAATAGACGCTGGCCCCAAAGGAAACTACTCTCGATTTATGAATCACAGCTGCCAGCCC
AACTGTGAGACCCTCAAGTGGACAGTGAATGGGGACACTCGTGTGGGCCTGTTTGCCGTCTGTGACATTCCTGCA
GGGACGGAGCTGACTTTTAACTACAACCTCGATTGTCTGGGCAATGAAAAAACGGTCTGCCGGTGTGGAGCCTCC
AATTGCAGTGGATTCCTCGGGGATAGACCAAAGACCTCGACGACCCTTTCATCAGAGGAAAAGGGCAAAAAGACC
AAGAAGAAACGAGGCGGCGCAGAGCAAAAGGGGAAGGGAAGAGGCAGTCAGAGGACGAGTGCTTCCGCTGCGGT
GATGGCGGGCAGCTGGTGCTGTGTGACCGCAAGTTCTGCACCAAGGCCTACCACCTGTCCTGCCTGGGCCTTGGC
AAGCGGCCCTTCGGGAAGTGGGAATGTCCTTGGCATCATTGTGACGTGTGTGGCAAACCTTCGACTTCATTTTGC
CACCTCTGCCCCAATTCGTTCTGTAAGGAGCACCAGGACGGGACAGCCTTCAGCTGCACCCCGGACGGGCGGTCC
TACTGCTGTGAGCATGACTTAGGGGCGGCATCGGTCAGAAGCACCAAGACTGAGAAGCCCCCCCCAGAGCCAGGG
AAGCCGAAGGGGAAGAGGCGGCGGCGGAGGGGCTGGCGGAGAGTCACAGAGGGCAAA**TAG**CGCCAGGCGGCCGCT
TGGCCGGATCCAGGGGCGGTGCAGGGCGGCCGGCCCTGCCTGCGGGAGAGGGCGAGCATGAACTGGCCCGGAGGA
CCCAGCTCGAGCCGCCAGGACACAGACGTACAGGCCTCCTCGGGAGGGAGCGCCTCCCCACCACTGAGCCATCCT
CAGCAGCGTCCGCTGCGTCTGCACTGATGACCGTCTGAGCCCAGCTCAGCGTTCCTGGACAAACAGCCTCACTCC
TCAGCGTTACCGCCACACTTGAATTTCTCCGAATGTCAAGGTTCCCTCCCACTCTATTTTTTTAGGTTAAAGTTA
ATTGGCATATGGAATGTTTTAATCTCCTCTGAAATGTGTAGCGTAGGCTTTTCCCAAGGGTCGCTAGAAACTCGT
CTTCGCGTTGCCCCCTTTCTGGCTCTCAGCGCCGTCGCCACTCGGGAGAGGCTGGGTGAGGCCCGTGTGAGGACT
GACCCTGGATTCCTCGAAACTGCCATTGTGATCATTACTCTGCTCTTTGGTGGCTGTATCATTTTTTTGTACTAA
TGTGAATTGTTCCTCAGAAACGCTTCTTTTCCATCCTAGTGAGAAGCTGGCCCTGCAGGTGGTGGCAGCAATGGT
GTTGTAAGATTTCCTCCCGTAGTTTTTTCTCCTCATGGATTTGAATGAAATGCCAATAACACGTCCACTTTCAAC
GTGTAGTTTACGCGGAGCACTTTCGAGGCCTGGCCGGGTTGGGCCTACTTCTCACCTGGGCCTATCTTCTGAACT
CGCTAGGTTCTTATCAACATTTGGGGGATAACTTTGTATATTTTTTCATTTGGCTTTTCTTTACCAGTTTCTGA
TTTTTATTCTCAATATATTTTTGCTAAACCTATTTCACAAATCACCACCGACTGAAGTGTGTGTTTACTGATGCG
GCCCTGAGCTCCATGGCGAAAGGAGTGACTTTGCAGGGCGTGAGACCGCAGTCTGCTTAGAGCACAGGAAGTGAC
AACTTAGGGAGCCCCGTAGGGCGCTGCAGGCCCCGGGGACCCCAGCACGTGGGTCTAAAGAGAGACGGAGTCTAG
CTCTCCTGCCACCCAGAGTGGCTTCCATCTCAGCACTCTGTGGGTCTGGTGATGGAAGATGCAGTCTCTGCTGAT
CACATGTGCCCTCTGCCAGGGCACCTACTGAGAGGTGCGGTCCTGGGGGTGGAGGCCTGCCTGGCAGGTGTGCGT
GCCTCGTACGTGTGTTATGGGCACTGGTCTAGGCCAGGTATGACACCCACTCTCCTGTGAGATTTCACTTTAGTT
TTTAAAAGGTCCAGTTCTACAGAGTGAGACCTATCTATCTGAGTACTACATATGTTTAAGACTTGGTTCTTTTT
TTGAGGGATCCTTGACCCTGGGAAGTCTGGAGCACCCTGAGAAGGGGGCACCATGTGTGCCTTTGCCCACGTGTC
CTGAGGGGCTGCTTGTCTGGGAGGGAGGGAGAGAACATTCAGCAGCAGGTGCTTTTTATGGCCTTTTCTTAAAA
TAACCTAAGGGGGACACATCCATCTTGCAGAGAAGTTACAGAACTCCCCTTGAAAACTGCTGCTGAGGCTCCTG
TTAAATTTTCTGTGGCATCTTTTATGCCTTGGTAAAAACTGCAGTGTCTTTGGACCTGAGAGTGGCTACTCCGTG
GTTTTGTGACCTGTAAGCGTGGGGTTCAGGGGTGTGTGGCCCTGCAGGGTCCCACGCCTCCCTGAGCACTGACTG
GAAGTTTCACTGGCTGGTGGCTGTCCCTTCTCCCATCAGGGTCCCCAGCAAAGTTAACTACACAGAGGACCCAGG
GGAAACGAGCTGTGTAGCCACTGACTTGCTCGCGCGGCCGTGGCCTCTGAGGGCACTCGCCGGTTAAGACAGGG
TGGGAGTAGTGCTTTCCAGTTCAGACTCTAACTTCTCCCAAAGTGTCCTAAGAAAATACTGGATCGGCTCATAGA
TTTATGCTCCTTATGATGCCCTAACTTGGAAGGTTGTTCTAGGGACAGGCCGGGCAGTGTCCCCACACACACCTT
AGAGTCGAAGGCCCCAGGGCCCCGCTGTCACTTGCCCAAAAGATCCCTTCCGGCAGGTAAGGGACTACCAATGCT
TACGTCAAAACAGCAGAATCGGCTTTGCAGTGCACTTTGGGGAGCAGATATTAACTTATTTTGTGTTGGACAGT
AGTGAAATCTTGTGATTTTTAATCGCTTTGATAATACTTCCAAATTTTATGATTTTTCTGAAGGAAATAATGCAA
ACATTTTAAATATGTTTCTCCCCCTTTCCAAAAACTGTTAAACTAATGAGCAAGTAACACTAACTTTGAATGTCT

FIGURE 617C

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CTACAATACCCGTTGATAACTCAGTGGAGCCAGGCTTTGGGGTAGCGGCCCTGAGCTTGCAGGGTTTCTCGCCAC
TGGGGCTGACCACGCCCCCAGCTGTGACCGTGGGTGTGGCTGGCTCTCGGCCCTGCCCAGCTTTGTTCTGAGGAC
GTGGTGACTTCCTGAACATCAGCTTCAATCCTCCATCATTAATGTGAAGCAAAACACAAAAACCGCCCCAATCCC
TCAGGATTCCTTGGCATCCGAAACCAGCATCTGCACCTAAACCCATACCCACCCGTGTGCGCCCACAGGGGGATG
TGTCCGAATGGGCAGCTTAAAATGTGGTCACCTGTGGGGGAAACTCTTCAGGCACCTGAAGTGAGAACCCAGCTG
TCCGTCCTCAGGCCGGCCTTTCTTCCGGCGACACCCGTCCATGGCTGGCTGGGTCCCCTTCGCAGTGTTTGTCTG
TCTTGACATCTAAACCCCGGCGTGTGCAGTGCCCATCTTCCAGGACTACCTTATTTTCCAGAATTAAACCTGTTT
TATAATTCAAGTTAATGCAAATGACTGTCAGTTGCCAAATATCTTGATCCTGTGAGTGTAGTTGATGACTGTTTG
TTAGTCAGTAGAGTAAAATGCTGTGTCCACGGGGTGTCACAGCCTCACCATACCCTGTTGAGGTGTGAAATGCCC
CGTCAGAAATTAAATACAAACTTAAATGTGCCTATTGGTGTCTAAACTTCATACAATGTAAGGTCAGATTCCTTT
TAGGAATACTGGGTGCTGTCACCAGGTTTGATAGTTAGACTTAAAAACTTGAAATTCACTTTTTGGGGGGAGGGA
TATACTGAAATAGAGAGTTGAGACTTGCCAGTTGGGGGAAAATAGCATTTAAAATGGAAAGCTGTGTTTGGAAAA
TTGTGTATGAGTATTTTTGTATTAAAAACATTTTAAA
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FIGURE 618

MEFSIKQSPLSVQSVVKCIKMKQAPEILGSANGKTPSCEVNRECSVFLSKAQLSSSLQEGVMQKFNGHDALPFIP
ADKLKDLTSRVFNGEPGAHDAKLRFESQEMKGIGTPPNTTPIKNGSPEIKLKITKTYMNGKPLFESSICGDSAAD
VSQSEENGQKPENKARRNRKRSIKYDSLLEQGLVEAALVSKISSPSDKKIPAKKESCPNTGRDKDHLLKYNVGDL
VWSKVSGYPWWPCMVSADPLLHSYTKLKGQKKSARQYHVQFFGDAPERAWIFEKSLVAFEGEGQFEKLCQESAKQ
APTKAEKIKLLKPISGKLRAQWEMGIVQAEEAASMSVEERKAKFTFLYVGDQLHLNPQVAKEAGIAAESLGEMAE
SSGVSEEAAENPKSVREECIPMKRRRRAKLCSSAETLESHPDIGKSTPQKTAEADPRRGVGSPPGRKKTTVSMPR
SRKGDAASQFLVFCQKHRDEVVAEHPDASGEEIEELLRSQWSLLSEKQRARYNTKFALVAPVQAEEDSGNVNGKK
RNHTKRIQDPTEDAEAEDTPRKRLRTDKHSLRKRDTITDKTARTSSYKAMEAASSLKSQAATKNLSDACKPLKKR
NRASTAASSALGFSKSSSPSASLTENEVSDSPGDEPSESPYESADETQTEVSVSSKKSERGVTAKKEYVCQLCEK
PGSLLLCEGPCCGAFHLACLGLSRRPEGRFTCSECASGIHSCFVCKESKTDVKRCVVTQCGKFYHEACVKKYPLT
VFESRGFRCPLHSCVSCHASNPSNPRPSKGKMMRCVRCPVAYHSGDACLAAGCSVIASNSIICTAHFTARKGKRH
HAHVNVSWCFVCSKGGSLLCCESCPAAFHPDCLNIEMPDGSWFCNDCRAGKKLHFQDIIWVKLGNYRWWPAEVCH
PKNVPPNIQKMKHEIGEFPVFFFGSKDYYWTHQARVFPYMEGDRGSRYQGVRGIGRVFKNALQEAEARFREIKLQ
REARETQESERKPPPYKHIKVNKPYGKVQIYTADISEIPKCNCKPTDENPCGFDSECLNRMLFECHPQVCPAGE
FCQNQCFTKRQYPETKIIKTDGKGWGLVAKRDIRKGEFVNEYVGELIDEEECMARIKHAHENDITHFYMLTIDKD
RIIDAGPKGNYSRFMNHSCQPNCETLKWTVNGDTRVGLFAVCDIPAGTELTFNYNLDCLGNEKTVCRCGASNCSG
FLGDRPKTSTTLSSEEKGKKTKKKTRRRAKGEGKRQSEDECFRCGDGGQLVLCDRKFCTKAYHLSCLGLGKRPF
GKWECPWHHCDVCGKPSTSFCHLCPNSFCKEHQDGTAFSCTPDGRSYCCEHDLGAASVRSTKTEKPPPEPGKPKG
KRRRRGWRRVTEGK

FIGURE 619

AGGCTGTCTGCAGAGATTTGAAAA**ATG**GCAACAAATGAAAGTGTCAGCATCTTTAGTTCAGCATCCTTGGCTGTG
GAATATGTAGATTCACTTTTACCTGAGAATCCTCTGCAAGAACCATTTAAAAATGCTTGGAACTATATGTTGAAT
AATTATACAAAGTTCCAGATTGCAACATGGGGATCCCTTATAGTTCATGAAGCCCTTTATTTCTTATTCTGTTTA
CCTGGATTTTTATTTCAATTTATACCTTATATGAAAAAATACAAAATTCAAAAGGATAAGCCAGAGACATGGGAA
AACCAATGGAAGTGTTTCAAAGTTCTTCTCTTTAATCACTTCTGTATCCAGCTGCCTTTGATTTGTGGAACCTAT
TATTTTACAGAGTATTTCAATATTCCTTATGATTGGGAAAGAATGCCAAGATGGTATTTTCTTTTGGCAAGATGC
TTTGGTTGTGCAGTCATTGAAGATACTTGGCACTATTTTCTGCATAGACTCTTACACCACAAAAGAATATACAAG
TATATTCATAAAGTTCATCATGAGTTTCAGGCTCCATTTGGAATGGAAGCTGAATATGCACATCCTTTGGAGACT
CTAATTCTTGGAACTGGATTTTTCATTGGAATCGTGCTTTTGTGTGATCATGTAATTCTTCTTTGGGCATGGGTG
ACCATTCGTTTATTAGAAACTATTGATGTCCATAGTGGTTATGATATTCCTCTCAACCCTTTAAATCTGATCCCT
TTCTATGCTGGTTCTCGGCATCATGATTTCCACCACATGAACTTCATTGGAAACTATGCTTCAACATTTACATGG
TGGGATCGAATTTTTGGAACAGACTCTCAGTATAATGCCTATAATGAAAAGAGGAAGAAGTTTGAGAAAAAGACT
GAA**TAA**ATATCTCACGTAAACCTTCCTGAAAGATAAACGTTTCCTGAATTCAGAAACTAGTAGCTAACATTGCT
TCTGGAGAGCAGAAATAAGCATGTCTTCTGGCTACTAAGTGATAAAAAGAACATTAACAACCTTTAATTACCTTC
CTAGTGGGAACTTTTTCTACTTTACCTACAAGTTCTATATATGTAGAAATGAATAAATATATATTTAAGTACAGT
TTTCATGAGGAAGTTTTAAAAGACCATGTTCCTAAGCTTCCAAGAAGGTTTTGGATACTAGAAGTATTAATCTAT
GGCTTTTCTCCCAGTAAAACCATAGGCCTGAAGTTCACATTGGGTCTTTAAATCTTTTAGATATATACTGGTCAT
TTCAGAAAATTCTTCATAGTGGTATTGGCCTTATATTTAACTTTTTTTTTATTTTTTTTTTGAGACAAAGCCACA
CTCTGTCTCCTTGGCTGGAGTGTGGTGGCACAGTCTCAGCTCACTGCAACCTCTGCCTCCCAGTTCAAGCAATTC
TTCTGCCTCAGCCTCCCAAGTAGCTGGGATTACAGGCACCCGCCACCACGCCCAGCTAATTTTTGTATTTTTGTA
GAGATGGGGTTTCACGATGTTGGCCAGGCTGGTCTCAAACTTCTGACCTCAAGTGATCTGCCCACCTTGGCCTCC
CAAAGTGCTGGGATTACAGGTGTAAGCCACTGCGCCCGGCCTTTTAACTTTAAACATGTTTAGAATTCACCTA
AAGATCAAAATATCATGGATTGAACCTCATCAATTGATAGCAGTGAGTGACTGAAGCTTCCAAATCAAGAAAAGC
CGGCACCAAGAACTTCCATTCTAATCTAGAGCTGACCAGTTTGAGCTGATTCTCTCTTTGAAGAGTCCTTCTTGA
TTGCAGTGCAGTACTGGCATTTCTGAATGGATGTAAGTGGAGTATTTAGTCTAAAGGCTTTTCAAATTACTTGA
ATTTTTTTAAAAATTGAGGAGCTTTATTTCTATTACCCTTCCATTTTTGTGTGAAAAAAAAAAAAAAA

FIGURE 620

MATNESVSIFSSASLAVEYVDSLLPENPLQEPFKNAWNYMLNNYTKFQIATWGSLIVHEALYFLFCLPGFLFQFI
PYMKKYKIQKDKPETWENQWKCFKVLLFNHFCIQLPLICGTYYFTEYFNIPYDWERMPRWYFLLARCFGCAVIED
TWHYFLHRLLHHKRIYKYIHKVHHEFQAPFGMEAEYAHPLETLILGTGFFIGIVLLCDHVILLWAWVTIRLLETI
DVHSGYDIPLNPLNLIPFYAGSRHHDFHHMNFIGNYASTFTWWDRIFGTDSQYNAYNEKRKKFEKKTE

FIGURE 621A

GCGGGGACCGCGACGAGCCCGGGTCGCCGTTGGCAGCAGCAGCAGCAACACCAGCAGCAGCAGCAGCCCCGGCGG
CGGCGCGGAACCCCGAGCGCCCGGGCGCACCCCGGCTTCCCGGAGCGCGACGCGGCGGCAGCAGCCCCGGTGCGG
CCGCGCGCGCCTTAGGCTCGGCCCCGCGGCTCGGGGACCCCGACTCCCGGCCCAGCGAGCGCGTCCCCCGGCGCC
GCCCGAGAGCCCGAGGAGGCAGCGGCCGCAGAGCCCGGGGGAGGGGGGCGGCCACCGCCCGCGCCGGGCATCCTC
AGGAGCCCCAGAGCGCGGAGGGCGCGGCGCCGCCGAGCGGTGCTGGCCCCCGCGGGCTCCCCGGACCTTCCCCAC
CGCCTGGGCCCGAGGGACGCGTGATCGGGCGGGCGGCCGGGCGCAAGGGTGGGAGGGAGCCGCCCCCGCCCGCGC
CCCCTCCGCCCCTCGCCCCAAACCCCTGGGCGCCGGGCCCGGGCCGCGCGGCCTGAAGCGCCCGCG**ATG**GCGAGC
CCGCCGCGGCACGGGCCGCCCGGGCCGGCGAGCGGAGACGGCCCCAACCTCAACAACAACAACAACAACAACAAC
AACCACAGCGTGCGCAAGTGCGGCTACCTGCGCAACGAAGAGCATGGCCACAAGCGCTTCTTCGTGCTGCGCGGA
CCCGGCGCGGGCGGCGACGAGGCGACGGCGGGCGGGGGGTCGGCGCCGCAACCGCCGCGGCTCGAGTACTACGAG
AGCGAGAAAAAGTGGCGGAGCAAGGCAGGCGCGCCGAAACGGGTGATCGCTCTCGACTGCTGCCTGAACATCAAC
AAGCGCGCCGACGCCAAGCACAAGTACCTGATCGCCCTCTACACCAAGGACGAGTACTTCGCCGTGGCCGCCGAG
AACGAGCAGGAGCAGGAGGGCTGGTACCGCGCGCTCACCGACCTGGTCAGCGAGGGCCGCGCGGCCGCCGGAGAC
GCGCCCCCCGCCGCCGCGCCCGCCGCGTCCTGCAGCGCCTCCCTGCCCGGCGCCCTGGGCGGCTCTGCCGGCGCC
GCCGGGGCCGAGGACAGCTACGGGCTGGTGGCTCCCGCCACGGCCGCCTACCGTGAGGTGTGGCAGGTGAACCTG
AAGCCCAAGGGTCTGGGCCAGAGCAAGAACCTGACGGGGGTGTACCGTCTGTGCCTGTCTGCGCGCACCATCGGC
TTCGTGAAGCTCAACTGCGAGCAGCCGTCGGTGACGCTGCAGCTCATGAACATCCGCCGCTGCGGCCACTCGGAC
AGCTTCTTCTTCATCGAGGTGGGCCGCTCGGCCGTCACAGGCCCCGGCGAGCTGTGGATGCAGGCGGACGACTCG
GTGGTGGCGCAGAACATCCACGAGACCATCCTGGAGGCCATGAAGGCGCTCAAGGAGCTCTTCGAGTTCCGGCCG
CGCAGTAAGAGCCAATCGTCGGGGTCGTCGGCCACGCACCCCATCAGCGTCCCCGGCGCGCGCCGCCACCACCAC
CTGGTCAACCTGCCCCCCAGCCAGACGGGCCTGGTGCGCCGCTCGCGCACCGACAGCCTGGCCGCCACCCCGCCG
GCGGCCAAGTGCAGCTCGTGCCGGGTGCGCACCGCCAGCGAGGGCGACGGCGGCCGGGCTGCGGGAGCGGCGGCC
GCGGCGCAGAGGCTGGTGTCGGTGGCTGGGAGCCCCCTGAGCCCCGGGCCGGTGCGCGCGCCCCTGAGCCGCTCG
CACACCCTGAGCGGCGGCTGCGGCGGCCGCGGGAGCAAGGTGGCGCTGCTGCCGGCAGGGGGCGCGCTGCAACAC
AGCCGCTCCATGTCCATGCCCGTGGCGCACTCGCCGCCCGCCGCCACCAGCCCCGGCTCCCTGTCGTCCAGCAGC
GGCCACGGCTCGGGCTCCTACCCGCCGCCGCCCGGCCCGCACCCGCCTCTGCCGCATCCGCTGCACCACGGCCCC
GGCCAGCGGCCCTCCAGCGGCAGCGCCTCCGCCTCGGGCTCCCCCAGCGACCCCGGCTTCATGTCCCTGGACGAG
TACGGCTCCAGCCCAGGCGACCTGCGCGCCTTCTGCAGCCACCGAAGCAACACGCCCGAGTCCATCGCGGAGACG
CCCCCCGGCCCGAGACGGCGGCGGCGGCGGTGAGTTCTACGGGTACATGACCATGGACAGGCCCCTGAGCCACTGT
GGCCGCTCCTACCGCCGGGTCTCGGGGGACGCGGCCCAGGACCTGGACCGAGGGCTGCGCAAGAGGACCTACTCC
CTGACCACGCCAGCCCGGCAGCGGCCGGTGCCCCAGCCCTCCTCTGCCTCGCTGGATGAATACACCCTGATGCGG
GCCACCTTCTCGGGCAGCGCGGGCCGCCTCTGCCCGTCCTGCCCCGCGTCCTCTCCCAAGGTGGCCTACCACCCC
TACCCAGAGGACTACGGAGACATCGAGATCGGCTCCCACAGGAGCTCCAGCAGCAACCTGGGGGCAGACGACGGC
TACATGCCCATGACGCCCGGCGCGGCCTTCGCGGGCAGTGGGAGCGGCAGCTGCAGGAGCGACGACTACATGCCC
ATGAGCCCCGCCAGCGTGTCCGCCCCCAAGCAGATCTTGCAGCCCAGGGCCGCCGCCGCCGCCGCCGCCGCCGTG
CCTTCTGCGGGGCCTGCGGGGCCAGCACCCACCTCTGCGGCGGGCAGGACATTCCCGGCGAGCGGGGGCGGCTAC
AAGGCCAGCTCGCCCGCCGAGAGCTCCCCCGAGGACAGTGGGTACATGCGCATGTGGTGCGGTTCCAAGCTGTCC
ATGGAGCATGCAGATGGCAAGCTGCTGCCCAACGGGGACTACCTCAACGTGTCCCCCAGCGACGCGGTCACCACG
GGCACCCCGCCCGACTTCTTCTCCGCAGCCCTGCACCCCGGCGGGGAGCCGCTCAGGGGCGTTCCCGGCTGCTGC
TACAGCTCCTTGCCCCGCTCCTACAAGGCCCCCTACACCTGTGGCGGGGACAGCGACCAGTACGTGCTCATGAGC
TCCCCCGTGGGGCGCATCCTGGAGGAGGAGCGTCTGGAGCCTCAGGCCACGCCAGGGCCCAGCCAGGCGGCCAGC
GCCTTCGGGGCCGGCCCCACGCAGCCCCCTCACCCTGTAGTGCCTTCGCCCGTGCGGCGTAGCGGCCGCCGGTCA
GGTTTCTTGGGCCAGCGCGGCCGGGCGGTGAGGCCCACGCGCCTGTCCCTGGAGGGGCTGCCCAGCCTGCCCAGC
ATGCACGAGTACCCACTGCCACCGGAGCCCAAGAGCCCCGGCGAGTACATCAACATCGACTTTGGCGAGCCCGGG
GCCCGCCTGTCGCCGCCCGCGCCTCCCCTGCTGGCGTCGGCGGCCTCGTCCTCCTCGCTCTTGTCCGCCAGCAGC
CCGGCCTCGTCGCTGGGCTCAGGCACCCCGGGCACCAGCAGCGACAGCCGGCAGCGGTCTCCGCTCTCCGACTAC
ATGAACCTCGACTTCAGCTCCCCCAAGTCTCCTAAGCCGGGCGCCCCGAGCGGCCACCCCGTGGGCTCCTTGGAC
GGCCTCCTGTCCCCCGAGGCCTCCTCCCCGTATCCGCCGTTGCCCCCGCGTCCGTCCGCGTCCCCGTCGTCGTCT

FIGURE 621B

CTGCAGCCGCCGCCACCGCCGCCGGCCCCGGGGGAGCTGTACCGCCTGCCCCCCGCCTCGGCCGTTGCCACCGCC
CAGGGCCCGGGCGCCGCCTCATCGTTGTCCTCGGACACCGGGGACAATGGTGACTACACCGAGATGGCTTTTGGT
GTGGCCGCCACCCCGCCGCAACCTATCGCGGCCCCCCCGAAGCCAGAAGCTGCCCGCGTGGCCAGCCCGACGTCG
GGCGTGAAGAGGCTGAGCCTCATGGAGCAGGTGTCGGGAGTCGAGGCCTTCCTGCAGGCCAGCCAGCCCCCGGAC
CCCCACCGCGGCGCCAAGGTCATCCGCGCAGACCCGCAGGGGGGCCGCCGCCGCCACAGTTCCGAGACCTTCTCC
TCCACCACGACGGTCACCCCCGTGTCCCCGTCCTTCGCCCACAACCCCAAGCGCCACAACTCGGCCTCCGTGGAA
AATGTCTCTCTCAGGAAAAGCAGCGAGGGCGGCGTGGGTGTCGGCCCTGGAGGGGGCGACGAGCCGCCCACCTCC
CCACGACAGTTGCAGCCGGCGCCCCCTTTGGCACCGCAGGGCCGGCCGTGGACCCCGGGTCAGCCCGGGGGCTTG
GTCGGTTGTCCTGGGAGCGGTGGATCGCCCATGCGCAGAGAGACCTCTGCCGGCTTCCAGAATGGTCTCAACTAC
ATCGCCATCGACGTGAGGGAGGAGCCCGGGCTGCCACCCCAGCCGCAGCCGCCGCCGCCGCCGCTTCCTCAGCCG
GGAGACAAGAGCTCCTGGGGCCGGACCCGAAGCCTCGGGGGTCTCATCAGCGCTGTGGGCGTCGGCAGCACCGGC
GGCGGGTGCGGGGGGCCGGGTCCCGGTGCCCTGCCCCCTGCCAACACCTACGCCAGCATTGACTTCTTGTCCCAC
CACTTGAAGGAGGCCACCATCGTGAAAGAG**TGA**AGATCTGTCTGGCTTTATCACCAGGATGTCACATGTCAGAGA
ATATCATTAAAAGAAGACGCTCAGCGCTGTTTCAGCCCGAAGCTGCTTGCAGTTTTCTTTTGGATCTGAGCAATG
ACTGTGTTTGGAAACATCTGTGGACTCTGATAGATGGGGCACAACAAGGCAAGGTCACCTGCCTCTTTCCCTTGT
TCCCGGATGGGCATTCATCATTGTGCTGTTTGCGTTTTGTTTTGTTTTGTTTTAACAAAATTAGCTGAAGAAGTT
ATTCTCAAGAAAATTGGATGTTTTCATTGGCCTTCTTAAATTGTGGCCAGTGTCTTTTAATTTCTTCTTCTTTTC
CTTTTGGCAAAGCAGATATAACCCTCAGCATGCTAGGAGAGTGCACCCGTACCTATGGAAGTGGTAAAATCTGGT
ATTTACTGGCTTACACTCAAAACGACCACAGTCCTACCTCAGTTCAAGGTAAAGCCGGATTTCCGTGGCGGGGGT
CCACAGGACCTCCTGTAGTAGCCCCTGCGCTGTGTGTCTGGAGCGCGTCCTCGCCTTATTTAAATGGTCCAGTAG
ACAGCTGCTTGTTGGATTCCAGTGCAGGTACCTGCGATGTTTACGTCCACACCGAGCCCAGTGTGGGACTGACAT
TTCTCAATGGAAGTGAAATTTGGGATTGGACTTTGAAGACGATTACTAAATAATAATTATTATATGTAACTGAAG
CAACCTACTTTTGAAAATCAACTGTATTGGGTAGTGGGAGGTGGGAGGGAAGGGCTTTGGGAAGGGGATGAATAT
CTCTTTTTACCTTTAACAGACTTGTTTAATCTTCTCGATGTAGATGTTTATGTAGGTACTTCACATTGCAAACGC
CTTTTATTCTATTTACAAGCTCAGATGTCTCTGCTCTCCTGAATCTTGGGCATGCCTTTCTGTAACCAAAAATCC
CTGTAGGCGTGCTAGCAATTCCAGGGTGGTCCGGGTTTGGCAGATTTGATTTTTAAAAAATGTATTATCTTTAAT
AAAAATGTTATTATGTCAACCAGTGAGGCTGCCCTGAACAAAAAAAAACAAAAGAAAAAAAAAAAAAAGGAAAGA
AAGAAACTGATAAAAAGAGGCATCCAGCCCCTATGTTATTGATGGAAAAAGAAAAAGAAGAAAAGCAATCTCGCA
GTACATGTTACTTGTCGAAAAAATTCCGGACAAGACTACCCTTGTTTTATGTTTTCAGTATTCTGAAAATACCAG
TGTGTGGCAGTTCTCGCAGATGTTACCTAAAACTGCTGAACTTGACCGGCAGAATGTTCTGCCGTTTTCTGCTCC
CTCGACACTTGATTGGAGGGCTGTCGACCTCTCCTCCCGTGGGGGCTTCCCCAGTGCCTATCTTCTCTGATAGTC
ATGGAGAGGTTACACTAATTCATTGGAGATGTAAGTTGTTGGTTTTGTTTTGTTTTGTTTTAGAAAAATATATA
TAAATATATAATAGATATCTATCGCTATAGAATAATGCATTAATAAAATGAGGCTTTTTAGAGGAAGACCAAAA
AATTCAATGTCTTAAAAATATATTTAATGGCAATGCAAAGTCTTCCTGCTTCCGTGCTGAACTTTAGAACAGAG
GATTGTATTGCAAGACAAAGTTGAATGTAAAGTGATCTCCCTGAACATTTTTAAGGTTTTACTTTTCTGAAATTA
TACATCACAGCAGTGCATAGGCCATATAATGTTAGCTGGAAGGTCAATTTCAGTGTATGATATACTTTATTAAGA
TGTATAAACATCCTGAAGTTTTTATTTAGTTTTGGGAATAGGCATCAGTGGGTGGTATTTGCTTTGTAACTCCC
CCCAGGTACGATAGGGACTGAATATGGACCCTGCTGAAAGCAGTGTATTGACGCATATTTAACTCGCCCTCTATC
CGTAGAGTAGTCATGACACTATACAGATGGTTCGTGTTCATACTGCAGCTTAAAACAAGCAAATACACAGATGA
TAATATGCTAAATTTTCCTCTATCCTGTACATTTCACAAAAGGCATATGCAATATTTACATTTTTAATTTAGTT
TACAGAATGGAACCAAAATGTATAAATGTTATGTTTGCTAAAACTTCACAATGTATATTGGGTCTTTGTACATTT
TGCCTGACTTACCTTAAATTTAAAATATTTTTTGCTATATAAACTTTAACAGTTATTAAACAGTGTTTTCCTTTT
GGGTACGTATTGTTTCTGGATATCAAGATGTTAAATATATTTCTTGCTATTGTGATATGACAAGAGACTTAACTT
ATCTTGCTCTGTCTTCCACTGTACACGCTGTATATAGGGGTCAATGTGATGCTGCTGGAGACGAGAATAAACTGG
ACTAGAATAGTGCATTGTATTTAGTCTGTATTGATCATGGATGCCCTCCTTAATAGCCATATGCAATAAAATAAA
GTACATTATTTATGAAATGAA

FIGURE 622

MASPPRHGPPGPASGDGPNLNNNNNNNNNNNHSVRKCGYLRNEEHGHKRFFVLRGPGAGGDEATAGGGSAPQPPRLE
YYESEKKWRSKAGAPKRVIALDCCLNINKRADAKHKYLIALYTKDEYFAVAAENEQEQEGWYRALTDLVSEGRAA
AGDAPPAAAPAASCSASLPGALGGSAGAAGAEDSYGLVAPATAAYREVWQVNLKPKGLGQSKNLTGVYRLCLSAR
TIGFVKLNCEQPSVTLQLMNIRRCGHSDSFFFIEVGRSAVTGPGELWMQADDSVVAQNIHETILEAMKALKELFE
FRPRSKSQSSGGSSATHPISVPGARRHHHLVNLPPSQTGLVRRSRTDSLAATPPAAKCSSCRVRTASEGDGGRAAG
AAAAAQRLVSVAGSPLSPGPVRAPLSRSHTLSGGCGGRGSKVALLPAGGALQHSRSMSMPVAHSPPAATSPGSLS
SSSGHGSGSYPPPPGPHPPLPHPLHHGPGQRPSSGSASASGSPSDPGFMSLDEYGSSPGDLRAFCSHRSNTPESI
AETPPARDGGGGGEFYGYMTMDRPLSHCGRSYRRVSGDAAQDLDRGLRKRTYSLTTPARQRPVPQPSSASLDEYT
LMRATFSGSAGRLCPSCPASSPKVAYHPYPEDYGDIEIGSHRSSSSNLGADDGYMPMTPGAAFAGSGSGSCRSDD
YMPMSPASVSAPKQILQPRAAAAAAAAVPSAGPAGPAPTSAAGRTFPASGGGYKASSPAESSPEDSGYMRMWCGS
KLSMEHADGKLLPNGDYLNVSPSDAVTTGTPPDFFSAALHPGGEPLRGVPGCCYSSLPRSYKAPYTCGGDSDQYV
LMSSPVGRILEEERLEPQATPGPSQAASAFGAGPTQPPHPVVPSPVRRSGRRSGFLGQRGRAVRPTRLSLEGLPS
LPSMHEYPLPPEPKSPGEYINIDFGEPGARLSPPAPPLLASAASSSSLLSASSPASSLGSGTPGTSSDSRQRSPL
SDYMNLDFSSPKSPKPGAPSGHPVGSLDGLLSPEASSPYPPLPPRPSASPSSSLQPPPPPPAPGELYRLPPASAV
ATAQGPGAASSLSSDTGDNGDYTEMAFGVAATPPQPIAAPPKPEAARVASPTSGVKRLSLMEQVSGVEAFLQASQ
PPDPHRGAKVIRADPQGGRRHSSETFSSTTTVTPVSPSFAHNPKRHNSASVENVSLRKSSEGGVGVGPGGGDEP
PTSPRQLQPAPPLAPQGRPWTPGQPGGLVGCPGSGGSPMRRETSAGFQNGLNYIAIDVREEPGLPPQPQPPPPPL
PQPGDKSSWGRTRSLGGLISAVGVGSTGGGCGGPGPGALPPANTYASIDFLSHHLKEATIVKE

FIGURE 623

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GTCAACCAGTGAGGCTGCCCTGAACAAAAAAAAACAAAAAGAAAAAAAAAAAAAAGGAAAGAAAGAAACTGATAA
AAAGAGGCATTCCAGCCCCTATGTTATTGATGGAAAAAGAAAAAGAAGAAAAGCAATCTCGCAGTACATGTTACT
TGTGAAAAAATTCCGGACAAGACTACCCTTGTTTTATGTTTTCAGTATTCTGAAAATACCAGTGTGTGGCAGTTC
TCGCAGATGTTACCTAAAACTGCTGAACTTGACCGGCAGAATGTTCTGCCGTTTTCTGCTCCCTCGACACTTGAT
TGGAGGGCTGTCGACCTCTCCTCCCGTGGGGGCTTCCCCAGTGCCTATCTTCTCTGATAGTCATGGAGAGGTTAC
ACTAATTCATTGGAGATGTAAGTTGTTGGTTTTGTTTTGTTTTGTTTTTAGAAAAATATATATAAATATATAATA
GATATCTATCGCTATAGAATAATGCATTAATAAAATGAGGCTTTTTTAGAGGAAGACCAAAAAATTCAATGTCTT
AAAAATATATTTAATGGCAATGCAAAGTCTTCCTGCTTCCGTGCTGAACTTTAGAACAGAGGATTGTATTGCAA
GACAAAGTTGAATGTAAAGTGATCTCCCTGAACATTTTTAAGGTTTTACTTTTCTGAAATTATACATCACAGCAG
TGCATAGGCCATATAATGTTAGCTGGAAGGTCAATTTCAGTGTATGATATACTTTATTAAGATGTATAAAACATC
CTGAAGTTTTTATTTAGTTTTGGGAATAGGCATCAATGGGTGGTATTTGCTTTGTAACTCCCCCCAGGTACGATA
GGGACTGAATATGGACCCTGCTGAAAAGCAGTGTATTGACGCATATTTAACTCGCCCTCTATCCGTAGAGTAGTC
ATGACACTATACAGATGGTTCGTGTTCATACTGCAGCTTAAAACAAGCAAAATACACAGATGATAATATGCTAAA
TTTTCCTCTATCCTGTACATTTCACAAAAAGGCATATGCAATATTTACATTTTTAATTTAGTTTACAGAATGGAA
CCAAAATGTATAAATGTTATGTTTGCTAAAACTTCACAATGTATATTGGGTCTTTGTACATTTTGCCCTGACTTA
CCTTAAATTTAAAATATTTTTTGCTATATAAACTTTAACAGTTATTAAACAGTGTTTTCTTTTTGGGTACGTATT
GTTTCTGGATATCAAGATGTTAAATATATTTCTTGCTATTGTGATATGACAAGAGACTTAACTTATCTTGCTCTG
TCTTCCACTGTACACGCTGTATATAGGGGTCAATGTGATGCTGCTGGAGACGAGAATAAACTGGACTAGAATAGT
GCATTGTATTTAGTCTGTATTGATCATGGATGCCCTCCTTAATAGCCATATGCAATAAAATAAAGTACATTATTT
ATGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
```

FIGURE 624A

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GGGTGATTCAGCGCCCGGCGAGGCGGAACGGGCCGCAAGAGGAGGAGGGGAGAGCCCGTCCGCGCCTGGGCTCCC
GGGGTGGCACGAGCCCGCGGCCGGAGTGCGAGGCGGAGGCGAGGAGGCCGCGGGGACGGGAGGCGAGGCCGGCCG
GGCCCCCGAAGCCATGGAGAACGCGCACACCAAGACGGTGGAGGAGGTGCTGGGCCACTTCGGCGTCAACGAGAG
TACGGGGCTGAGCCTGGAACAGGTCAAGAAGCTTAAGGAGAGATGGGGCTCCAACGAGTTACCGGCTGAAGAAGG
AAAAACCTTGCTGGAACTTGTGATTGAGCAGTTTGAAGACTTGCTAGTTAGGATTTTATTACTGGCAGCATGTAT
ATCTTTTGTTTTGGCTTGGTTTGAAGAAGGTGAAGAAACAATTACAGCCTTTGTAGAACCTTTTGTAATTTTACT
CATATTAGTAGCCAATGCAATTGTGGGTGTATGGCAGGAAAGAAATGCTGAAAATGCCATCGAAGCCCTTAAGGA
ATATGAGCCTGAAATGGGCAAAGTGTATCGACAGGACAGAAAGAGTGTGCAGCGGATTAAAGCTAAAGACATAGT
TCCTGGTGATATTGTAGAAATTGCTGTTGGTGACAAAGTTCCTGCTGATATAAGGTTAACTTCCATCAAATCTAC
CACACTAAGAGTTGACCAGTCAATTCTCACAGGTGAATCTGTCTCTGTCATCAAGCACACTGATCCCGTCCCTGA
CCCACGAGCTGTCAACCAAGATAAAAAGAACATGCTGTTTTCTGGTACAAACATTGCTGCTGGGAAAGCTATGGG
AGTGGTGGTAGCAACTGGAGTTAACACCGAAATTGGCAAGATCCGGGATGAAATGGTGGCAACAGAACAGGAGAG
AACACCCCTTCAGCAAAAACTAGATGAATTTGGGGAACAGCTTTCCAAAGTCATCTCCCTTATTTGCATTGCAGT
CTGGATCATAAATATTGGGCACTTCAATGACCCGGTTCATGGAGGGTCCTGGATCAGAGGTGCTATTTACTACTT
TAAAATTGCAGTGGCCCTGGCTGTAGCAGCCATTCCTGAAGGTCTGCCTGCAGTCATCACCACCTGCCTGGCTCT
TGGAACTCGCAGAATGGCAAAGAAAAATGCCATTGTTCGAAGCCTCCCGTCTGTGGAAACCCTTGGTTGTACTTC
TGTTATCTGCTCAGACAAGACTGGTACACTTACAACAAACCAGATGTCAGTCTGCAGGATGTTCATTCTGGACAG
AGTGGAAGGTGATACTTGTTCCCTTAATGAGTTTACCATAACTGGATCAACTTATGCACCTATTGGAGAAGTGCA
TAAAGATGATAAACCAGTGAATTGTCACCAGTATGATGGTCTGGTAGAATTAGCAACAATTTGTGCTCTTTGTAA
TGACTCTGCTTTGGATTACAATGAGGCAAAGGGTGTGTATGAAAAAGTTGGAGAAGCTACAGAGACTGCTCTCAC
TTGCCTAGTAGAGAAGATGAATGTATTTGATACCGAATTGAAGGGTCTTTCTAAAATAGAACGTGCAAATGCCTG
CAACTCAGTCATTAAACAGCTGATGAAAAAGGAATTCACTCTAGAGTTTTCACGTGACAGAAAGTCAATGTCGGT
TTACTGTACACCAAATAAACCAAGCAGGACATCAATGAGCAAGATGTTTGTGAAGGGTGCTCCTGAAGGTGTCAT
TGACAGGTGCACCCACATTCGAGTTGGAAGTACTAAGGTTCCTATGACCTCTGGAGTCAAACAGAAGATCATGTC
TGTCATTCGAGAGTGGGGTAGTGGCAGCGACACACTGCGATGCCTGGCCCTGGCCACTCATGACAACCCACTGAG
AAGAGAAGAAATGCACCTTGAGGACTCTGCCAACTTTATTAAATATGAGACCAATCTGACCTTCGTTGGCTGCGT
GGGCATGCTGGATCCTCCGAGAATCGAGGTGGCCTCCTCCGTGAAGCTGTGCCGGCAAGCAGGCATCCGGGTCAT
CATGATCACTGGGGACAACAAGGGCACTGCTGTGGCCATCTGTCGCCGCATCGGCATCTTCGGGCAGGATGAGGA
CGTGACGTCAAAAGCTTTCACAGGCCGGGAGTTTGATGAACTCAACCCCTCCGCCCAGCGAGACGCCTGCCTGAA
CGCCCGCTGTTTTGCTCGAGTTGAACCCTCCCACAAGTCTAAAATCGTAGAATTTCTTCAGTCTTTTGATGAGAT
TACAGCTATGACTGGCGATGGCGTGAACGATGCTCCTGCTCTGAAGAAAGCCGAGATTGGCATTGCTATGGGCTC
TGGCACTGCGGTGGCTAAAACCGCCTCTGAGATGGTCCTGGCGGATGACAACTTCTCCACCATTGTGGCTGCCGT
TGAGGAGGGGCGGGCAATCTACAACAACATGAAACAGTTCATCCGCTACCTCATCTCGTCCAACGTCGGGGAAGT
TGTCTGTATTTTCCTGACAGCAGCCCTTGGATTTCCCGAGGCTTTGATTCCTGTTCAGCTGCTCTGGGTCAATCT
GGTGACAGATGGCCTGCCTGCCACTGCACTGGGGTTCAACCCTCCTGATCTGGACATCATGAATAAACCTCCCCG
GAACCCAAAGGAACCATTGATCAGCGGGTGGCTCTTTTTCCGTTACTTGGCTATTGGCTGTTACGTCGGCGCTGC
TACCGTGGGTGCTGCTGCATGGTGGTTCATTGCTGCTGACGGTGGTCCAAGAGTGTCCTTCTACCAGCTGAGTCA
TTTCCTACAGTGTAAAGAGGACAACCCGGACTTTGAAGGCGTGGATTGTGCAATCTTTGAATCCCCATACCCGAT
GACAATGGCGCTCTCTGTTCTAGTAACTATAGAAATGTGTAACGCCCTCAACAGCTTGTCCGAAAACCAGTCCTT
GCTGAGGATGCCCCCCTGGGAGAACATCTGGCTCGTGGGCTCCATCTGCCTGTCCATGTCACTCCACTTCCTGAT
CCTCTATGTCGAACCCTTGCCACTCATCTTCCAGATCACACCGCTGAACGTGACCCAGTGGCTGATGGTGCTGAA
AATCTCCTTGCCCGTGATTCTCATGGATGAGACGCTCAAGTTTGTGGCCCGCAACTACCTGGAACCTGGTAAAGA
GTGTGTGCAGCCTGCCACCAAATCCTGCTCGTTCTCGGCATGCACCGATGGGATTCCTGGCCGTTTGTGCTGCT
CATAATGCCCCTGGTGATCTGGGTCTATAGCACAGACTAACTTTAGCGATATGTTCTGGTCTTGACTGACAGT
TTTCCATAAGAAGATGTTTAACTTAATCAATTAATTTTTTTATTGTTTAAAGCAACTGTCTATTTCTGCTGAAT
TTTCACATGAACATACTGGCTGGTGATGGAGGTTTCATACTCTAGATTTTGTTTGCTTTTTCTGACTCCAGTGG
GGCAAGATTTTCCTTTTTTATACACATAATTAAAGTGTCCATTGACATGTACAGAGAACTAACACTATTTTATGC
AAATATTTTTTTGTAGATGAAAAGCATGTACAGTGTTCTGTTTAATACTCATCCTTGTATAAAAAAAATAGTTG
```

FIGURE 624B

AGCCAGCAGACATTGTCAGCAAATTAATTGGCAGCAGATTTTAGGAAATGAATGTGTGTGGTTTTTTTTCTAAAA
CTAAATAGCATGTATTGTGTCTTTTGCATGATGATCCGGATTTAATTTGATATCACAGTCTAATTTTTATTCATA
AGCCAATTTTTCTGCACTGAGCAGAGTCTTGCTACCTCAGTCAGTATTGTTTTGGTTTGCTACTTCCCTCACCCA
CTTTGGCCTCCGTTCACCCCACCCCACCCCACCTCTCCCCACCTTACCCCCGCCCCGCTTGGCTTCTTCTTTAGG
ATTGTGATGGTTCGTTCTGTTTACATCAGTTTTAACGAGAGGTATGCCTGTACTCGCTTGTGCAGAAACATTGT
TCCAGATTCAATCGACTGGGTTTATGTCCCTTCACATAGTTTTTAAGGTTATTTATTTAAATGTCTAATGTATTT
TATTGTAACAGACATTGTTTTGCCAACATTGCCTATTTCAGTGGCACGTCATCTAGTTTTAAAAAAATAAAACAT
TTTAAAAAG

FIGURE 625

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MENAHTKTVEEVLGHFGVNESTGLSLEQVKKLKERWGSNELPAEEGKTLLELVIEQFEDLLVRILLLAACISFVL
AWFEEGEETITAFVEPFVILLILVANAIVGVWQERNAENAIEALKEYEPEMGKVYRQDRKSVQRIKAKDIVPGDI
VEIAVGDKVPADIRLTSIKSTTLRVDQSILTGESVSVIKHTDPVPDPRAVNQDKKNMLFSGTNIAAGKAMGVVVA
TGVNTEIGKIRDEMVATEQERTPLQQKLDEFGEQLSKVISLICIAVWIINIGHFNDPVHGGSWIRGAIYYFKIAV
ALAVAAIPEGLPAVITTCLALGTRRMAKKNAIVRSLPSVETLGCTSVICSDKTGTLTTNQMSVCRMFILDRVEGD
TCSLNEFTITGSTYAPIGEVHKDDKPVNCHQYDGLVELATICALCNDSALDYNEAKGVYEKVGEATETALTCLVE
KMNVFDTELKGLSKIERANACNSVIKQLMKKEFTLEFSRDRKSMSVYCTPNKPSRTSMSKMFVKGAPEGVIDRCT
HIRVGSTKVPMTSGVKQKIMSVIREWGSGSDTLRCLALATHDNPLRREEMHLEDSANFIKYETNLTFVGCVGMLD
PPRIEVASSVKLCRQAGIRVIMITGDNKGTAVAICRRIGIFGQDEDVTSKAFTGREFDELNPSAQRDACLNARCF
ARVEPSHKSKIVEFLQSFDEITAMTGDGVNDAPALKKAEIGIAMGSGTAVAKTASEMVLADDNFSTIVAAVEEGR
AIYNNMKQFIRYLISSNVGEVVCIFLTAALGFPEALIPVQLLWVNLVTDGLPATALGFNPPDLDIMNKPPRNPKE
PLISGWLFFRYLAIGCYVGAATVGAAAWWFIAADGGPRVSFYQLSHFLQCKEDNPDFEGVDCAIFESPYPMTMAL
SVLVTIEMCNALNSLSENQSLLRMPPWENIWLVGSICLSMSLHFLILYVEPLPLIFQITPLNVTQWLMVLKISLP
VILMDETLKFVARNYLEPGKECVQPATKSCSFSACTDGISWPFVLLIMPLVIWVYSTDTNFSDMFWS
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FIGURE 626

GAGGAGGCCCGAGAGGAGTCGGTGGCAGCGGCGGCGGCGGGACCGGCAGCAGCAGCAGCAGCAGCAGCAACC
ACTAGCCTCCTGCCCCGCGGCGTTGCGACGAGCCCCACGAGCCGCTCACCCCGCCGTTCTCAGCGCTGCCCGACC
CCGCTGGCGCGCCTCCCGCCGCAGTCCCGGCAGCGCCTCAGTTGTCCTCCGACTCGCCCTCGGCCTTCGCGCAGC
GCAGCACAGCCGCACGCACCGCAGCACAGCACAGCACAGCCCAGGCATAGCTTCGGCACAGCCCCGGCTCCGGCT
CCTGCGGCAGCTCCTCTGGCACGTCCCTGCGCCGACATTCTGGAGGTTGG**ATG**CTCTTGTCCAAAATCAACTCGC
TTGCCCACCTGCGCGCCGCGCCCTGCAACGACCTGCACGCCACCAAGCTGGCGCCCGGCAAGGAGAAGGAGCCCC
TGGAGTCGCAGTACCAGGTGGGCCCGCTACTGGGCAGCGGCGGCTTCGGCTCGGTCTACTCAGGCATCCGCGTCT
CCGACAACTTGCCGGTGGCCATCAAACACGTGGAGAAGGACCGGATTTCCGACTGGGGAGAGCTGCCTAATGGCA
CTCGAGTGCCCATGGAAGTGGTCCTGCTGAAGAAGGTGAGCTCGGGTTTCTCCGGCGTCATTAGGCTCCTGGACT
GGTTCGAGAGGCCCGACAGTTTCGTCCTGATCCTGGAGAGGCCCGAGCCGGTGCAAGATCTCTTCGACTTCATCA
CGGAAAGGGGGAGCCCTGCAAGAGGAGCTGGCCCGCAGCTTCTTCTGGCAGGTGCTGGAGGCCGTGCGGCACTGCC
ACAACTGCGGGGTGCTACACCGCGACATCAAGGACGAAAACATCCTTATCGACCTCAATCGCGGCGAGCTCAAGC
TCATCGACTTCGGGTCGGGGGCGCTGCTCAAGGACACCGTCTACACGGACTTCGATGGGACCCGAGTGTATAGCC
CTCCAGAGTGGATCCGCTACCATCGCTACCATGGCAGGTCGGCGGCAGTCTGGTCCCTGGGGATCCTGCTGTATG
ATATGGTGTGTGGAGATATTCCTTTCGAGCATGACGAAGAGATCATCAGGGGCCAGGTTTTCTTCAGGCAGAGGG
TCTCTTCAGAATGTCAGCATCTCATTAGATGGTGCTTGGCCCTGAGACCATCAGATAGGCCAACCTTCGAAGAAA
TCCAGAACCATCCATGGATGCAAGATGTTCTCCTGCCCCAGGAAACTGCTGAGATCCACCTCCACAGCCTGTCGC
CGGGGGCCCAGCAAA**TAG**CAGCCTTTCTGGCAGGTCCTCCCCTCTCTTGTCAGATGCCCGAGGGAGGGGAAGCTTC
TGTCTCCAGCTTCCCGAGTACCAGTGACACGTCTCGCCAAGCAGGACAGTGCTTGATACAGGAACAACATTTACA
ACTCATTCCAGATCCCAGGCCCCTGGAGGCTGCCTCCCAACAGTGGGGAAGAGTGACTCTCCAGGGGTCCTAGGC
CTCAACTCCTCCCATAGATACTCTCTTCTTCTCATAGGTGTCCAGCATTGCTGGACTCTGAAATATCCCGGGGGT
GGGGGGTGGGGGTGGGCAGAACCCTGCCAATGGAACTCTTTCTTCATCATGAGTTCTGCTGAATGCCGCGATGGG
TCAGGTAGGGGGGAAACAGGTTGGGATGGGATAGGACTAGCACATTTTAAGTCCCTGTCACCTCTTCCGACTCTT
TCTGAGTGCCTTCTGTGGGGACTCCGGCTGTGCTGGGAGAAATACTTGAACTTGCCTCTTTTACCTGCTGCTTCT
CCAAAAATCTGCCTGGGTTTTGTTCCCTATTTTTCTCTCCTGTCCTCCCTCACCCCCTCCTTCATATGAAAGGTG
CCATGGAAGAGGCTACAGGGCCAAACGCTGAGCCACCTGCCCTTTTTTCTGCCTCCTTTAGTAAAACTCCGAGTG
AACTGGTCTTCCTTTTTGGTTTTTACTTAACTGTTTCAAAGCCAAGACCTCACACACACAAAAAAATGCACAAAC
CAAGCAATCAACAGAAAAGCTGTAAATGTGTGTACAGTTGGCATGGTAGTATACAAAAAGATTGTAGTGGATCTA
ATTTTTAAGAAATTTTGCCTTTAAGTTATTTTACCTGTTTTTGTTTCTTGTTTTGAAAGATGCGCATTCTAACCT
GGAGGTCAATGTTATGTATTTATTTATTTATTTATTTGGTTCCCTTCCTATTCCAAGCTTCCATAGCTGCTGCCC
TAGTTTTCTTTCCTCCTTTCCTCCTCTGACTTGGGGACCTTTTGGGGGAGGGCTGCGACGCTTGCTCTGTTTGTG
GGGTGACGGGACTCAGGCGGGACAGTGCTGCAGCTCCCTGGCTTCTGTGGGCCCCTCACCTACTTACCCAGGTG
GGTCCCGGCTCTGTGGGTGATGGGAGGGGCCATTGCTGACTGTGTATATAGGATAATTATGAAACACAGTTCTGG
ATGGTGTGCCTTCCAGATCCTCTCTGGGGCTGTGTTTGAGCAGCAGGTAGCCTGCTGGTTTTATCTGAGTGAAA
TACTGTACAGGGGAATAAAAGAGATCTTATTTTTTTTTTATACTTGCGTTTGGAATAAAAACCCTTTGGCTTT

FIGURE 627

MLLSKINSLAHLRAAPCNDLHATKLAPGKEKEPLESQYQVGPLLGSGGFGSVYSGIRVSDNLPVAIKHVEKDRIS
DWGELPNGTRVPMEVVLLKKVSSGFSGVIRLLDWFERPDSFVLILERPEPVQDLFDFITERGALQEELARSFFWQ
VLEAVRHCHNCGVLHRDIKDENILIDLNRGELKLIDFGSGALLKDTVYTDFDGTRVYSPPEWIRYHRYHGRSAAV
WSLGILLYDMVCGDIPFEHDEEIIRGQVFFRQRVSSECQHLIRWCLALRPSDRPTFEEIQNHPWMQDVLLPQETA
EIHLHSLSPGPSK

FIGURE 628

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GTTTGTTGGCTGCGGCAGCAGGTAGCAAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTGGAGA
ACCAGCGGTTACCATGGAGGGGATCAGTATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGACTA
TGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTACTC
CATCATCTTCTTAACTGGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAG
CATGACGGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTTCTGGGCAGT
TGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACAGTCAACCTCTA
CAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCCACGCCACCAACAGTCAGAG
GCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCCTCCTGCTGACTATTCCCGA
CTTCATCTTTGCCAACGTCAGTGAGGCAGATGACAGATATATCTGTGACCGCTTCTACCCCAATGACTTGTGGGT
GGTTGTGTTCCAGTTTCAGCACATCATGGTTGGCCTTATCCTGCCTGGTATTGTCATCCTGTCCTGCTATTGCAT
TATCATCTCCAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCT
GGCTTTCTTCGCCTGTTGGCTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAA
GCAAGGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTCTTCCACTGTTG
TCTGAACCCCATCCTCTATGCTTTCCTTGGAGCCAAATTTAAAACCTCTGCCCAGCACGCACTCACCTCTGTGAG
CAGAGGGTCCAGCCTCAAGATCCTCTCCAAAGGAAAGCGAGGTGGACATTCATCTGTTTCCACTGAGTCTGAGTC
TTCAAGTTTTCACTCCAGCTAACACAGATGTAAAAGACTTTTTTTATACGATAAATAACTTTTTTTAAGTTAC
ACATTTTTCAGATATAAAAGACTGACCAATATTGTACAGTTTTTATTGCTTGTTGGATTTTTGTCTTGTGTTTCT
TTAGTTTTTGTGAAGTTTAATTGACTTATTTATATAAATTTTTTTTGTTTCATATTGATGTGTGTCTAGGCAGGA
CCTGTGGCCAAGTTCTTAGTTGCTGTATGTCTCGTGGTAGGACTGTAGAAAAGGGAACTGAACATTCCAGAGCGT
GTAGTGAATCACGTAAAGCTAGAAATGATCCCCAGCTGTTTATGCATAGATAATCTCTCCATTCCCGTGGAACGT
TTTTCCTGTTCTTAAGACGTGATTTTGCTGTAGAAGATGGCACTTATAACCAAAGCCCAAAGTGGTATAGAAATG
CTGGTTTTTCAGTTTTCAGGAGTGGGTTGATTTCAGCACCTACAGTGTACAGTCTTGTATTAAGTTGTTAATAAA
AGTACATGTTAAACTTACTTAGTGTTATG
```

FIGURE 629

MEGISIYTSDNYTEEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVMGYQKKLRSMTDK
YRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSSVLILAFISLDRYLAIVHATNSQRPRKL
LAEKVVYVGVWIPALLLTIPDFIFANVSEADDRYICDRFYPNDLWVVVFQFQHIMVGLILPGIVILSCYCIIISK
LSHSKGHQKRKALKTTVILILAFFACWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLNPI
LYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS

FIGURE 630

GAGCTAGCTTTGCAAT**ATG**GCGGCCGAGGCGGACGGACCGCTTAAACGGCTGCTCGTGCCGATTCTTTTACCTGA
GAAATGCTACGACCAACTTTTCGTTCAGTGGGACTTGCTTCACGTCCCCTGCCTCAAGATTCTCCTCAGCAAAGG
CCTGGGGCTGGGCATTGTGGCTGGCTCACTTCTAGTAAAGCTGCCCCAGGTGTTTAAAATCCGGGGAGCCAAGAG
TGCTGAAGGGTTGAGTCTCCAGTCTGTAATGCTGGAGCTAGTGGCATTGACTGGGACCATGGTCTACAGCATCAC
TAACAACTTCCCATTCAGCTCTTGGGGTGAAGCCTTATTCCTGATGCTCCAGACGATCACCATCTGCTTCCTGGT
CATGCACTACAGAGGACAGACTGTGAAAGGTGTCGCTTTCCTCGCTTGCTACGGCCTGGTCCTGCTGGTGCTTCT
CTCACCTCTGACGCCCTTGACTGTAGTCACCCTGCTCCAGGCCTCCAATGTGCCTGCTGTGGTGGTGGGGAGGCT
TCTCCAGGCAGCCACCAACTACCACAACGGGTACACAGGCCAGCTCTCAGCCATCACAGTCTTCCTGCTGTTTGG
GGGCTCCCTGGCCCGAATCTTCACTTCCATTCAGGAAACCGGAGATCCCCTGATGGCTGGGACCTTTGTGGTCTC
CTCTCTCTGCAACGGCCTCATCGCCGCCCAGCTGCTCTTCTACTGGAATGCAAAGCCTCCCCACAAGCAGAAAAA
GGCGCAG**TAG**AGCCAGCTACTGGAGTCATTCCGTTTCCACTCATTCACCCAACCTCAGGGTTCTCCCCATCTGAG
CCAGCCTGCTGGTGTGACTTACTCATCCTCCATTCCTCTGCACTTGCAGACTTTCTGAGCCAGGGTTTTCTTTTA
GTGGAAACAAATGGTTGATGGATCCAGATCCTTAGAAAAGGAGAGGATGGGGGTAGAGTCTCCCAAGCCAAAATT
TTGACATTTGAGTGCTTTCGTAAGCCCTGTACATGTACTATTAATTCAGTCATTCAGCCAAGCCTCCTCCTCTAG
CAGCAATTTCCAGCTGTTTAACACTATCCTGGGCAAATGTTTTACCCTGTCCTCCAGCCTCCCTGCTTCCCTTCT
GGCCCTGGAAGACTGAGTCTGGACGGCAGAGTGGAGGGACTGGGAGGCTGTGGCTGCCTCCCTCCCTCAGCCCGG
CTGGGACTGTCTCCCGGACCCCAGTGCTGGGGTGGGGGAAGGGGGACGGAGAATGACTCAGGCAGGGCCCCAGGG
TGGGGTGAGGAGGTTCCTGCTCTGGCAGGTCTAGGCGGAAGGGAGTGGAGATGGGGCTGGTTGCTGCTGCAGTGA
GGGGAACAGATGGGACAATAAAGACTGGAGACTCAGTTGAATAATGCAAAAAAAAAAAAA

FIGURE 631

MAAEADGPLKRLLVPILLPEKCYDQLFVQWDLLHVPCLKILLSKGLGLGIVAGSLLVKLPQVFKIRGAKSAEGLS
LQSVMLELVALTGTMVYSITNNFPFSSWGEALFLMLQTITICFLVMHYRGQTVKGVAFLACYGLVLLVLLSPLTP
LTVVTLLQASNVPAVVVGRLLQAATNYHNGYTGQLSAITVFLLFGGSLARIFTSIQETGDPLMAGTFVVSSLCNG
LIAAQLLFYWNAKPPHKQKKAQ

FIGURE 632

CGGGAGGTCAGAAAACCGGGCCGCGGGCGGCACCGACAGCTGGGGCCCGGGTCAGGGACACGCGGAGGTCAGGCC
GGTGAAGGCGGCAGGAAGCTGGAGCACGATCCCAGGAGGAACAATCCTGCACC**ATG**ACTCAACAGCCACTTCGAG
GAGTGACCAGCCTGCGTTTCAACCAAGACCAAAGCTGCTTTTGCTGCGCCATGGAGACAGGTGTGCGCATCTACA
ACGTGGAGCCCTTGATGGAGAAGGGGCATCTGGACCACGAGCAGGTGGGCAGCATGGGCTTGGTGGAGATGCTGC
ACCGCTCCAACCTTCTGGCCTTGGTGGGCGGTGGTAGTAGTCCCAAGTTCTCAGAGATCTCAGTGCTGATCTGGG
ACGATGCCCGGGAGGGCAAGGACTCCAAGGAGAAGCTGGTGCTGGAGTTCACCTTCACCAAGCCAGTGCTTTCTG
TGCGCATGCGCCATGACAAGATCGTGATCGTGCTGAAGAACCGCATCTATGTGTACTCCTTCCCCGACAATCCCC
GAAAGCTGTTTGAGTTTGATACCCGGGACAACCCCAAGGGGCTCTGTGACCTCTGCCCCAGCCTGGAGAAGCAAC
TGCTAGTGTTCCCGGGACACAAGTGTGGGAGTCTGCAACTTGTGGACCTGGCGAGCACAAAGCCTGGCACCTCGT
CTGCTCCATTCACGATCAATGCACATCAGAGTGACATAGCCTGTGTGTCTCTAAACCAGCCAGGCACTGTAGTGG
CCTCAGCCTCCCAGAAGGGTACCCTTATTCGCCTCTTTGACACACAATCCAAGGAGAAACTGGTGGAGCTGCGCC
GAGGCACTGACCCTGCCACCCTCTACTGCATTAACTTCAGCCACGACTCCTCCTTCCTCTGCGCTTCCAGTGATA
AGGGTACTGTCCATATCTTTGCTCTCAAGGATACCCGCCTCAACCGCCGCTCCGCGCTGGCTCGCGTGGGCAAGG
TGGGGCCTATGATTGGGCAGTACGTGGACTCTCAGTGGAGCCTGGCGAGCTTCACTGTGCCTGCTGAGTCAGCTT
GCATCTGCGCCTTCGGTCGCAATACTTCCAAGAACGTCAACTCTGTCATTGCCATCTGCGTAGATGGGACCTTCC
ACAAATATGTCTTCACTCCTGATGGAAACTGCAACAGAGAGGCTTTCGACGTGTACCTTGACATCTGTGATGATG
ATGACTTT**TAA**GGACCCTGGGGGCTGTGCTAGGGACCTGCAGTGGCAGAACTGCAGAGCTGAGCCTTGGCAGTGG
GGCGTGCTTGGAAGCCACCAGCCAGCAAGCATTAATGGGGCTGGTGCCCACTTTCCACTCAGCAGAGCTATGTCT
AAATAAAGAGCTCACTTCCCCCCAGCACTTCTTGATGACTGTGTGCCCCAAGGGCCAGGCCAGAGACCCAGGAAG
GCAGCGACCCCTTGGGATCCCTAACCTGGAGGAAATTGCCAGGGACCCAGAGGGAGTGCCCTAATCCAACCTGGG
GATTTTTTAAAAGCTTCCTAGGAAGAGATGATCTCCGATGTGATGAATACGAATAAAAGGCCCTTAATGGC

FIGURE 633

MTQQPLRGVTSLRFNQDQSCFCCAMETGVRIYNVEPLMEKGHLDHEQVGSMGLVEMLHRSNLLALVGGGSSPKFS
EISVLIWDDAREGKDSKEKLVLEFTFTKPVLSVRMRHDKIVIVLKNRIYVYSFPDNPRKLFEFDTRDNPKGLCDL
CPSLEKQLLVFPGHKCGSLQLVDLASTKPGTSSAPFTINAHQSDIACVSLNQPGTVVASASQKGTLIRLFDTQSK
EKLVELRRGTDPATLYCINFSHDSSFLCASSDKGTVHIFALKDTRLNRRSALARVGKVGPMIGQYVDSQWSLASF
TVPAESACICAFGRNTSKNVNSVIAICVDGTFHKYVFTPDGNCNREAFDVYLDICDDDDF

FIGURE 634

ACGCCCTATACAACTTGGCTTCACATACTTTTACACTAACTTTATATGATTTTTAAAAACTGGTCTGATCGGACT
TCTCGTCCTGGGACACTGTTTACTGGAGTCTGGCCGGCTCTCCGTGCTCCTCTTGGTACCTCATTTTGGGGAGAA
CCTTAAACCCACTCGAGCAGATAATCTCCGCCTTGACCGGTGCCACCAAAGAAGGGTTGGAACC**ATG**TGGACTTT
TCTGGGCATTGCCACTTTCACCTATTTTTATAAGAAGTTCGGGGACTTCATCACTTTGGCCAACAGGGAGGTCCT
GTTGTGCGTGCTGGTGTTCCTCTCGCTGGGCCTGGTGCTCTCCTACCGCTGTCGCCACCGAAACGGGGGTCTCCT
CGGGCGCCAGCGGAGCGGCTCCCAGTTCGCCCTCTTCTCGGATATTCTCTCAGGCCTGCCTTTCATTGGCTTCTT
CTGGGCCAAATCCCCCCCTGAATCAGAAAATAAGGAGCAGCTCGGGGCCAGGAGGCGCAGAAAAGGAACCAATAT
TTCAGAAACAAGCTTAATAGGAACAGCTGCCTGTACATCAACATCTTCTCAGAATGACCCAGAAGTTATCATCGT
GGGAGCTGGCGTGCTTGGCTCTGCTTTGGTAGCTGTGCTTTCCAGAGATGGAAGAAAGGTGACAGTCATTGAGAG
AGACTTAAAAGAGCCTGACAGAATAGTTGGAGAATTCCTGCAGCCGGGTGGTTATCATGTTCTCAAAGACCTTGG
TCTTGGAGATACAGTGGAAGGTCTTGATGCCCAGGTTGTAAATGGTTACATGATTCATGATCAGGAAAGCAAATC
AGAGGTTCAGATTCCTTACCCTCTGTCAGAAAACAATCAAGTGCAGAGTGGAAGAGCTTTCCATCACGGAAGATT
CATCATGAGTCTCCGGAAAGCAGCTATGGCAGAGCCCAATGCAAAGTTTATTGAAGGTGTTGTGTTACAGTTATT
AGAGGAAGATGATGTTGTGATGGGAGTTCAGTACAAGGATAAAGAGACTGGAGATATCAAGGAACTCCATGCTCC
ACTGACTGTTGTTGCAGATGGGCTTTTCTCCAAGTTCAGGAAAAGCCTGGTCTCCAATAAAGTTTCTGTATCATC
TCATTTTGTTGGCTTTCTTATGAAGAATGCACCACAGTTTAAAGCAAATCATGCTGAACTTATTTTAGCTAACCC
GAGTCCAGTTCTCATCTACCGGATTTCATCCAGTGAAACTCGAGTACTTGTTGACATTAGAGGAGAAATGCCAAG
GAATTTAAGAGAATACATGGTTGAAAAAATTTACCCACAAATACCTGATCACCTGAAAGAACCATTCTTAGAAGC
CACTGACAATTCTCATCTGAGGTCCATGCTAGCAAGCTTCCTTCCTCCTTCATCAGTGAAGAAACGAGGTGTTCT
TCTTTTGGGAGACGCATATAATATGAGGCATCCACTTACTGGTGGAGGAATGACTGTTGCTTTTAAAGATATAAA
ACTATGGAGAAAACTGCTAAAGGGTATCCCTGACCTTTATGATGATGCAGCTATTTTCGAGGCCAACAAATCATT
TTACTGGGCAAGAAAAACATCTCATTCCTTTGTCGTGAATATCCTTGCTCAGGCTCTTTATGAATTATTTTCTGC
CACAGATGATTCCCTGCATCAACTAAGAAAAGCCTGTTTTCTTTATTTCAAACTTGGTGGCGAATGTGTTGCGGG
TCCTGTTGGGCTGCTTTCTGTATTGTCTCCTAACCCTCTAGCTTTAATTGGACACTTCTTTGCTGTTGCAATCTA
TGCCGTGTATTTTTGCTTTAAGTCAGAACCTTGGATTACAAAACCTCGAGCCCTTCTCAGTAGTAGTGCTGTATT
GTACAAAGCGTGTTCTGTAATATTTCCTCTAATTTACTCAGAAATGAAGTATATGGTTCAT**TAA**GCTTAAAGGGG
AACCATTTGTGAATGAATATTTGGAACTTACCAAGTCCTAAGAGACTTTTGGAAGAGGATATATATAGCATAGTA
CCATACCACTTATAAAGTGGAAACTCTTGGACCAAGATTTGGATTAATTTGTTTTTGAAGTTTTTTGTATATAAA
TATGTAAATACATGCTTTAATTTGCAATTTAAAATGAAGGGGTTAAATAAGTTAGACATTTGAAAGAAATGATTG
TTACCATAAATTAGTGCTAATGCTGAGGAGAACTACAGTTTTTCTTTTGAATTTAGTATTTGAGATGAGTTGTTG
GGACATGCAAATAAAATGAAGAATGAC

FIGURE 635

MWTFLGIATFTYFYKKFGDFITLANREVLLCVLVFLSLGLVLSYRCRHRNGGLLGRQRSGSQFALFSDILSGLPF
IGFFWAKSPPESENKEQLGARRRRKGTNISETSLIGTAACTSTSSQNDPEVIIVGAGVLGSALVAVLSRDGRKVT
VIERDLKEPDRIVGEFLQPGGYHVLKDLGLGDTVEGLDAQVVNGYMIHDQESKSEVQIPYPLSENNQVQSGRAFH
HGRFIMSLRKAAMAEPNAKFIEGVVLQLLEEDDVVMGVQYKDKETGDIKELHAPLTVVADGLFSKFRKSLVSNKV
SVSSHFVGFLMKNAPQFKANHAELILANPSPVLIYRISSSETRVLVDIRGEMPRNLREYMVEKIYPQIPDHLKEP
FLEATDNSHLRSMLASFLPPSSVKKRGVLLLGDAYNMRHPLTGGGMTVAFKDIKLWRKLLKGIPDLYDDAAIFEA
NKSFYWARKTSHSFVVNILAQALYELFSATDDSLHQLRKACFLYFKLGGECVAGPVGLLSVLSPNPLALIGHFFA
VAIYAVYFCFKSEPWITKPRALLSSSAVLYKACSVIFPLIYSEMKYMVH

FIGURE 636

GGCACGAGGGCGCGGCGGAGGCTCCCGTGGCCTCGGACGCTCCTCCTAGCTAGCGGCCGCCGCCCGCCGCCGCCT
GCGCCTCCAGCTCCTTCGCCCCGGCGGGCCCGGCCGCCGCTTCCGGCAGCTCACCTGGGAAGCGCTCACCTGGGA
CGCGCTCACCTGGGACGCGCTACCTGCCTCCGGGCGCCTGGGCTTCAG**GATG**AAGGACCGTCTGGAGCAGCTGAA
GGCCAAGCAGCTGACACAGGATGATGATACTGATGCGGTTGAGATTGCTATCGACAACACGGCTTTTATGGACGA
GTTCTTTTCTGAGATTGAGGAAACTCGGCTTAACATTGACAAGATCTCAGAACATGTAGAGGAGGCTAAGAAACT
CTACAGTATCATTCTCTCTGCACCGATTCCAGAGCCAAAAACCAAGGATGACCTAGAGCAGCTCACGACTGAGAT
TAAGAAAAGGGCCAACAACGTCCGGAACAAACTGAAGAGCATGGAGAAGCATATTGAAGAAGATGAGGTCAGGTC
ATCGGCAGACCTTCGGATTCGGAAATCCCAGCACTCTGTCCTTTCTCGGAAGTTTGTGGAGGTGATGACCAAATA
CAATGAAGCTCAAGTGGACTTCCGAGAACGCAGCAAAGGGCGAATCCAGCGGCAGCTCGAAATTACTGGCAAAAA
GACAACCGATGAGGAGCTGGAGGAGATGTTGGAGAGTGGCAACCCGGCCATCTTCACTTCTGGGATCATTGACTC
ACAGATTTCCAAGCAAGCCCTCAGTGAGATTGAGGGACGACACAAGGACATTGTGAGGCTGGAGAGCAGCATCAA
GGAGCTTCACGACATGTTTATGGACATCGCCATGCTGGTGGAGAATCAGGGTGAGATGTTAGATAACATAGAGTT
GAATGTCATGCACACAGTGGACCACGTGGAGAAGGCACGAGATGAAACGAAAAAAGCTGTGAAATACCAGAGTCA
GGCCCGGAAGAAATTGATAATTATCATTGTGCTAGTAGTTGTGTTGCTGGGCATTTTAGCATTGATTATTGGACT
TTCCGTTGGGCTGAAT**TAA**GAGTGGCCTAAGAGGCTGCTGCACTGAAATAAACTGATTTCACTCCAGACTGGTGT
GGCCACCCTTGTCTTCAGATGAGAATGGAGTCTGAATGGCCTTCCTGAGAGCGAGTGCGACCCGTTCCTTTGTTT
CCTTGCAACCACCCTTGGACCTGACTCAGCTAACAATCTAGCCCTGGGGGAATGTGATCTACCTGATGCGACCCT
GAGTTCTCCCCAGAGCCTCCTCCTGCCCCACCAGCTCTCAAGTACCTTTTCTCCTGGACTGTGTGGACCCACCCA
GCTTTCTTCCTCCCTGTTGTGTGTCAGATTATGCCTTGCACTTGGGAAAGCTCTTGTGAGACTCTCCCAAGGTGC
TGTATTTTTCTACCTCATGGAGTATTCTCCCAGAAACTGCAATGTATTTTTTAGGGGAGTATCTTTAACAAAGC
AGAATGATTCTTCTAAGTTTGGCAACAAGAAGGCTTGGATCTGAGTCTTCTACCTGGCAGGATGCCAATCCTGTT
TGTTGTCCGTATGTCCTGAAAACATGAGGGACTGGCAGATGTCATTTTGGTCTAAAGAGCTGACTTGTTTGAAAT
TCAGCCTTAAATTAAGCTCTTAGTTGTTCAGCTTGGGGGGCAACTTTGATTTTTCTCTGTGTTGTAGTCTCTCAT
ATTTACTCAAGGAGGGACCAGGATGATACAGTCATCTGAGGTTATGCTTTGCAAAAGGCTGACGGTATGGAATAT
GTTTCCATGTCTGAGTCTTAGAAACTGGCTGCTCATTGTTAGAAAGTGATGCTTTGTGAGACTATTGTCTTGGGG
CCAAAAATAATCAGGGATTTTAAATTGGGCAAGGGACAAGGTGCTAGAATCCTAAGCTCTGGAAATATTTCATGA
CACTGGTGTATTCACTCATGTGTTCCAGATGTATTCTAATTGTGTATGAAATGTATGTACACATAAGTGTGTGTG
TCTCAGGAAGTAGGAAATAAAAATGGAAGCTATTATGACCTCAAAAAAAAAAAGCCAACTTTGAGCTAGGATAAA
AATTGGGTAAAGGACATTTGCTTACCTGCAAATGAATCACTGTGGAAATGTGATCTTCCCATATCATCAAGAAAC
TTGTTTTCTGGATGAATACTGGGAGAATAAAATGAGAACTCTGGAGTGAGCTAAATTGATCCCAATTAAGTTTTT
CTGCTTAGCAGACAGAAGGTATAATTTTTTGACACCCTTTCCCACCTGGTGCCTATGCTAGGCTTGTCCTGAGAA
CATCCCTCAGTAACTTGATATTCACATGACCTACAGGATGTCCCATCTGCAGGGCTGAGTCAGTTGGGGAACACC
AGAGGCTACACAGTAGCTCTTCCTGCTACTCGGTTAATGAGCTTGGCAGGTTCTTTGTCTCACTGAATTCTTATC
ATGGAAACAGCAGCAGCAGCCGCTAGGAAATCTTCAAGTGTAGTGTCTGTGCTAACCCAGTGGTAAATCCCTTAG
ATCCCCTGCTGGTCTCTGGCAGTCTCCTTGATTTTGGGTACCATGTATATTTTCCGCTTTGACTTTAACGCTTTC
TAGGATAGGGTAAGCACCCTTAATTCAGGCACTGTCCATTAGCTTCCTTTGCAAAGGCTACTTATGGCCGGTCAC
AATCCAGCACTCAGACAGAGCCAAGGCAATATCCTCTTGCCCATGGCTATGATGTCAGACAGTGGATGGGCTCCA
GCAACAAGAGACAAAATAACTAAAGGCCTTTGCTCTCCTCTGACATTGAGGCCTGGGGCTTACAGTTTGGAATAC
AACATGTGAAGGTTTTTGTTGTTGTTTGTATTTTTTAGATGTAAACTTGATTATTTTATTGCTAATTTAAAAATA
AAAATGACTTTGTATTGATTGTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 637

MKDRLEQLKAKQLTQDDDTDAVEIAIDNTAFMDEFFSEIEETRLNIDKISEHVEEAKKLYSIILSAPIPEPKTKD
DLEQLTTEIKKRANNVRNKLKSMEKHIEEDEVRSSADLRIRKSQHSVLSRKFVEVMTKYNEAQVDFRERSKGRIQ
RQLEITGKKTTDEELEEMLESGNPAIFTSGIIDSQISKQALSEIEGRHKDIVRLESSIKELHDMFMDIAMLVENQ
GEMLDNIELNVMHTVDHVEKARDETKKAVKYQSQARKKLIIIIVLVVVLLGILALIIGLSVGLN

FIGURE 638A

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AATAAGAAAAAGCTTTTCATTTTGAAATCTAGAATACCTCCACTTTTGAAAATCTTTGATTTCCCAAATTTTTCT
TGCTATGCACTAGTTAAAAGATAAGGTATTATATAATGAGCAATAGCACAGATCTCAAACTGTTTGAGTTGCATA
TGGGCCATACCTTCTTTTCTGTAACGTGCATACCCATGCATTAACACTTGTCGCCTTTTCCAGATCTGCTCACTT
TAGCACTCTGGCAATTAAACAGAACCCCCTTCTGGCAGAAGCTTATTCGAATTTGGGGAATGTGTACAAGGAAAG
AGGGCAGTTGCAGGAGGCAATTGAGCATTATCGACATGCATTGCGTCTCAAACCTGATTTCATCGATGGTTATAT
TAACGCTGCAGCCGCCTTGGTAGCAGCGGGTGACATGGAAGGGGCAGTACAAGCTTACGTCTCTGCTCTTCAGTA
CAATCCTGATTTGTACTGTGTTCGCAGTGACCTGGGGAACCTGCTCAAAGCCCTGGGTCGCTTGGAAGAAGCCAA
GAAGGTTTCAGGTGGGTGAAACCTCCTATTCCATGCGTAAGGTGCCTCGCTGAAGGGAGCTCGAGGCCTGGATCT
AGGGCAGACACACAACCTCCTCCTCCTCTTCCAGCAAGGAACGCACCGAAAAGTCACATGATGAGAAATATGGTA
ACGGGTTTGTAACTGCCACAGCAAACAATTTGCCTCCATGCCTGAATCTTCTGTCTTGTGGCTTCAGAAACAGC
TTAAAATAATTTTATTTACAAGCAAGTTATGTAAGAGAATGTTTTATACTATAGCCACAATTCTGTCAAAGATAA
GTAAAAGTTAATTGATATTAAAAATTATTAGAGATAATTTACTTAGTAAAAGCTTCTAACTCTTCTTGTTGTTCA
TTTTTTTTCCTTTTTTCTTCTTTGTTTGGATTGCAGCATTCTGCTCTTCTGATGATGCGCTGTGACCCTGCAGTA
GCGCAAAGGCTGCGCAGCGTTAATGCGCATTGCGTGCGAATGAACCCCTGTGAACGGTTGACTAGATGAGTAATC
TGATTGACTGGCTCCCTCAGTCCTATTCTGTAGCCTTTTTGGATAAAATTGGGTTTTAACATACCTCGAGTCCAA
CTAATCTCATTAAACAAATATTCTCCATGGGCCTGTCTAGTAGATTAATGGATCTGGTTGGCCGTTTGCTGCGTC
TAGGGGTGTTCTATGTAGCGCAGCAGTTCGCAGCGATTGCGCAGTGCGATGCTGTTAGGTTGCGCAAGCGATGTT
TGCGCTCGCATTACAGGGACCTCAACCTAGGTGCAATCCTGTCATGTGAGGTTTCAGCTTCAGTCCTCCTTGGGA
GACGGGGCATTGTGAGAATGTAACTTAAAGCCTGGCTTTATGATATCCTACTTGGCAGAAAGACATTTTTCTCCT
CAGTAGCATAGTTTTGATGTTAGTGAGGAACATTGTTGAAGAGCAGCATTTCCCAAAATGTGTTTCATAGTATTC
TAATAAAATGCCCAATGAAAGAAGAGTTCCATGGTCAACTAAGTTCAGGGAACCCTGTTACACTATTAAAGGCTT
AGGGAAGTCCAGTAAAGAAACCTATTTTCCGAATTTATTTGATCATGAACTCCTTTTTTTTTCAGCCATACCTCT
TAACACCTCATAGAACACACTTTGGGAAACAGTGGGGGTAGGAAAACTCGGCCTCAAGTTGCGCCCTCTAGGTAG
CACTTGAAAACATGACAAGGGCCCGTAGTTGTTTGGATAAGAGAACTCCAGCATAGAGCCTTATAGCAACTGACT
TCCCAGTTAAGTCCCAGTGTAAGGGTTGGTCTTTGGTTGGCAGAACTGAACATGGTGGTTTGCACTTGGGTTCTG
GTGGCGCAGGCGCAGGAGCAGCCAGCTGTGGCAGCGCATTAGTTTTGGCGCAAGCGAGCCTATGCTGCAGGGTCA
CTTTTGGCTGGTCAGAGAAGGAATA**ATG**ATATCACCTTCTTCCCCCCCTCCCCCCAATCTTTTTTTTTCCCTTT
ACAAATTTTCCCCTTTCCCTTTACCTCCTTTCCCTCCCATCTTCTTTCATTAACCCCTCCTAAGGCATGTTATTT
GAAAGCAATTGAGACGCAACCGAACTTTGCAGTAGCTTGGAGTAATCTTGGCTGTGTTTTCAATGCACAAGGGGA
AATTTGGCTTGCAATTCATCACTTTGAAAAGGCTGTCACCCTTGACCCAAACTTTCTGGATGCTTATATCAATTT
AGGAAATGTCTTGAAAGAGGCACGCATTTTTGACAGAGCTGTGGCAGCTTATCTTCGTGCCCTAAGTTTGAGTCC
AAATCACGCAGTGGTGCACGGCAACCTGGCTTGTGTATACTATGAGCAAGGCCTGATAGATCTGGCAATAGACAC
CTACAGGCGGGCTATCGAACTACAACCACATTTCCCTGATGCTTACTGCAACCTAGCCAATGCTCTCAAAGAGAA
GGGCAGTGTTGCTGAAGCAGAAGATTGTTATAATACAGCTCTCCGTCTGTGTCCCACCCATGCAGACTCTCTGAA
TAACCTAGCCAATATCAAACGAGAACAGGGAAACATTGAAGAGGCAGTTCGCTTGTATCGTAAAGCATTAGAAGT
CTTCCCAGAGTTTGCTGCTGCCCATTCAAATTTAGCAAGTGTACTGCAGCAGCAGGGAAAACTGCAGGAAGCTCT
GATGCATTATAAGGAGGCTATTCGAATCAGTCCTACCTTTGCTGATGCCTACTCTAATATGGGAAACACTCTAAA
GGAGATGCAGGATGTTCAGGGAGCCTTGCAGTGTTATACGCGTGCCATCCAAATTAATCCTGCATTTGCAGATGC
ACATAGCAATCTGGCTTCCATTCATAAGGATTCAGGGAATATTCCAGAAGCCATAGCTTCTTACCGCACGGCTCT
GAAACTTAAGCCTGATTTTCCTGATGCTTATTGTAACTTGGCTCATTGCCTGCAGATTGTCTGTGATTGGACAGA
CTATGATGAGCGAATGAAGAAGTTGGTCAGTATTGTGGCTGACCAGTTAGAGAAGAATAGGTTGCCTTCTGTGCA
TCCTCATCATAGTATGCTATATCCTCTTTCTCATGGCTTCAGGAAGGCTATTGCTGAGAGGCACGGCAACCTGTG
CTTAGATAAGATTAATGTTCTTCATAAACCACCATATGAACATCCAAAGACTTGAAGCTCAGTGATGGTCGGCT
GCGTGTAGGATATGTGAGTTCCGACTTTGGGAATCATCCTACTTCTCACCTTATGCAGTCTATTCCAGGCATGCA
CAATCCTGATAAATTTGAGGTGTTCTGTTATGCCCTGAGCCCAGACGATGGCACAAACTTCCGAGTGAAGGTGAT
GGCAGAAGCCAATCATTTCATTGATCTTTCTCAGATTCCATGCAATGGAAAAGCAGCTGATCGCATCCATCAGGA
TGGAATTCATATCCTTGTAAATATGAATGGCTATACTAAGGGCGCTCGAAATGAGCTTTTTGCTCTCAGGCCAGC
TCCTATTCAGGCAATGTGGCTGGGATACCCTGGGACGAGTGGTGCGCTTTTCATGGATTATATTATCACTGATCA
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FIGURE 638B

GGAAACTTCGCCAGCTGAAGTTGCTGAGCAGTATTCCGAGAAATTGGCTTATATGCCCCACACTTTTTTTATTGG
TGATCATGCTAATATGTTCCCTCACCTGAAGAAAAAAGCAGTCATCGATTTTAAGTCCAATGGGCACATTTATGA
CAATCGGATAGTTCTGAATGGCATCGACCTCAAAGCATTTCTTGATAGTCTACCAGATGTGAAAATTGTCAAGAT
GAAGTGTCCTGATGGAGGAGACAATGCAGATAGCAGTAACACAGCTCTTAATATGCCTGTTATTCCTATGAATAC
TATTGCAGAAGCAGTTATTGAAATGATTAACCGAGGACAGATTCAAATAACAATTAATGGATTCAGTATTAGCAA
TGGACTGGCAACTACTCAGATCAACAATAAGGCTGCAACTGGAGAGGAGGTTCCCCGTACCATTATTGTAACCAC
CCGTTCTCAGTACGGGTTACCAGAAGATGCCATCGTATACTGTAACTTTAATCAGTTGTATAAAATTGACCCTTC
TACTTTGCAGATGTGGGCAAACATTCTGAAGCGTGTTCCCAATAGTGTACTCTGGCTGTTGCGTTTTCCAGCAGT
AGGAGAACCTAATATTCAACAGTATGCACAAAACATGGGCCTGCCCCAGAACCGTATCATTTTTTCACCTGTTGC
TCCTAAAGAGGAACACGTCAGGAGAGGCCAGCTGGCTGATGTCTGCTTGGACACTCCACTCTGTAATGGGCACAC
CACAGGGATGGATGTCCTCTGGGCAGGGACCCCCATGGTGACTATGCCAGGAGAGACTCTTGCTTCTCGAGTTGC
AGCATCCCAGCTCACTTGCTTAGGTTGTCTTGAGCTTATTGCTAAAAACAGACAAGAATATGAAGACATAGCTGT
GAAGCTGGGAACTGATCTAGAATACCTGAAGAAAGTTCGTGGCAAAGTCTGGAAGCAAAGAATATCTAGCCCTCT
GTTCAACACCAAACAATACACAATGGAACTAGAGCGGCTCTATCTACAGATGTGGGAGCATTATGCAGCTGGCAA
CAAACCTGACCACATGATTAAGCCTGTTGAAGTCACTGAGTCAGCA**TAA**ATAAAGACTGCACAGGAGAATTACCC
CTATACCTGAGCCTCAACCTTCTGGGGGAAAGGGAACTAGATAACATACTTCTTACTTGTCTGTACAGTACCTTG
TTGCAGATGGGTGATATATAATGGTAATAGAATAGCACAGCCAGACTTGCTTCCTGCATGGTAGGGAGAGACACA
AAAGATGGGAAACTGCTTTTCCACAAGGAATCTCCGTAGAATTTTGCGGCGACCAGATGGTGCATAGGTCTGGAA
GGTCTGATCTCCCTTGGTCTTCCATGGGATGGTTAGTGTGGAGGGGAGATATAGATTGTCCGGCCGCTTTGTGAT
TCCATGGATTGATTCAGTCTTCTGGATTTTTTTTTCTTTATATTTTGGGTACTGGAGCTTTTAAAAATGTTTGGT
TTCAGGTATTTTTATTCATGTGAAGTGTATATGATTCTCTTGAGATAAGGTTTTAAGCTAAAATGTTACTCCCTG
TTTTAGTTTCTGAACTCTGACAGATTGACAGGGACTTTGCTGGTGTAGTCTTTTTATAGGTTTTATAAACCACTT
GAGCCTATATCAGTCGTTTTAGTGTCTGACCTAATATTTGGAGCTATCAGTGCTTTGTTGATTAGATGATGACT
CAAGATTTTTTCTGGTCCATTTCCCATTTCCTTTTCTTCCCTGACCCCCATACCCTCACCCTTAAAATTCTCCTG
TAACTCAACTAACAAAATCAAGCCTGATTCAAAACATCCTAGGGTGTTTAAACACACCATCTGGTGCCAAATGA
AGATTTTTAGGAGTGATTACTAATTATCAAGGGCACAGTTGTGGTACTGTCATTGATAATAATATAGTTTTTTTT
TTTTTCCTAATTTTGACCTGTTTCACCAGTGTTTTACCCTTGACTGCCCCTTCTATGCTGCTTCCAAAAGTGATA
GTGTGTGTAAGATTTTTACCTTCCTTTCTAAAGTTTTTTTTTTTTTTTTAAGTGAGTCCTGTTCTTCCTATTT
CTTTCAGCAGAAATGAAATCCCAGGTAAGTATAAGTATTCAAGTATTGATCAGTAAGTCACAGTTATCTCCAGT
GCATTAAATAACCTTCATCAAGAAATAGGTTATAGGTAAAATCTCTGAAGGATCATCTATGTATTCAAGTAATTA
TTTTTTAGATAATAACTGTCTTCTGGACTTGGTCTTGAAGTCTGTACAGATTCAGCCTCAGTAGTAGCGAACTGC
ACTGCTGTTTGGTTTGGAGTACAAATTAGACTTATAGTCCTCCTGGAACTTGAGTTATTAAAATCATAGGAATAA
AATTATGGGATCTCAACAAAGGGTCGAGGGTTTGAGGCTTAAACAAGCCAACATATGAATATATGTTTTGTCTCG
CTATACTGCACTTACGCTATCCAGTTGCAGGTAATTTTTTGTCTGCTAGTAGTGTTCTAGATTATGTCTTTCCAA
AGCGCTGAGGCTGTGCACCTATTCTGTAGTTGCAGCTGATGCCTGAATGTATCCTAGCTGACAAATTATTGATTA
ATAAGAACTTGAATTTCTGGAAGATTCTTACTGTTAACCAAATTTTGAGCAAGGAGTCTCAAAGGTAATTCTGAA
CCAGAATTACATGTTAATGAACAGTGTACCTTTAACAGTGTAAATCACGGAATATCCGTGAAGGGATTTCTTAA
TTTATTTTTTACCGGTTGATTGAAATATCAGTTAAAGGTTGCCAGCATGGTTGCAGATAAACTGATGTTTGAAAT
TCGCTGAAATACTTAATGTGGAATAGGATAATATACTTCCAATGCCCTCAAGGCTGTGACCTTACAGCCATTTTA
CATAGCACATCATTCCTCCTATAGGGATGAACTTTTTCCTGGCACGAAAAGTAGCCGCTCTGGTTGAAGCTTTGC
TTATTGTAACAGGCTTTTATTTCCAGGTAATATGTCTTGGAAGACTTAATTCTGATTAGAGATATAGATATTACT
GGAAACTAATTGTTTTTTTTCTATTGTACTCTGCTTATCAAAGAAGTAAAACATTTAAATCGTACTACAGAAAT
TAAGATGTTGTCTTGCGATCCTTAATAAATGAATGATTTCCCTTTAAAAAAA

FIGURE 639

MISPSSPPPPPNLFFFPLQIFPFPFTSFPSHLLSLTPPKACYLKAIETQPNFAVAWSNLGCVFNAQGEIWLAIHHF
EKAVTLDPNFLDAYINLGNVLKEARIFDRAVAAYLRALSLSPNHAVVHGNLACVYYEQGLIDLAIDTYRRAIELQ
PHFPDAYCNLANALKEKGSVAEAEDCYNTALRLCPTHADSLNNLANIKREQGNIEEAVRLYRKALEVFPEFAAAH
SNLASVLQQQGKLQEALMHYKEAIRISPTFADAYSNMGNTLKEMQDVQGALQCYTRAIQINPAFADAHSNLASIH
KDSGNIPEAIASYRTALKLKPDFPDAYCNLAHCLQIVCDWTDYDERMKKLVSIVADQLEKNRLPSVHPHHSMLYP
LSHGFRKAIAERHGNLCLDKINVLHKPPYEHPKDLKLSDGRLRVGYVSSDFGNHPTSHLMQSIPGMHNPDKFEVF
CYALSPDDGTNFRVKVMAEANHFIDLSQIPCNGKAADRIHQDGIHILVNMNGYTKGARNELFALRPAPIQAMWLG
YPGTSGALFMDYIITDQETSPAEVAEQYSEKLAYMPHTFFIGDHANMFPHLKKKAVIDFKSNGHIYDNRIVLNGI
DLKAFLDSLPDVKIVKMKCPDGGDNADSSNTALNMPVIPMNTIAEAVIEMINRGQIQITINGFSISNGLATTQIN
NKAATGEEVPRTIIVTTRSQYGLPEDAIVYCNFNQLYKIDPSTLQMWANILKRVPNSVLWLLRFPAVGEPNIQQY
AQNMGLPQNRIIFSPVAPKEEHVRRGQLADVCLDTPLCNGHTTGMDVLWAGTPMVTMPGETLASRVAASQLTCLG
CLELIAKNRQEYEDIAVKLGTDLEYLKKVRGKVWKQRISSPLFNTKQYTMELERLYLQMWEHYAAGNKPDHMIKP
VEVTESA

FIGURE 640

ATGCGTGAGTGCATCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGCAATGCCTGCTGGGAGCTCTACTGC
CTGGAACACGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATTGGGGGAGGAGATGATTCCTTCAAC
ACCTTCTTCAGTGAAACGGGTGCTGGCAAGCATGTGCCCCGGGCAGTGTTTGTAGACTTGGAACCCACAGTCATT
GATGAAGTTCGCACTGGCACTTACCGCCAGCTCTTCCACCCTGAGCAACTCATCACAGGCAAGGAAGATGCTGCC
AATAACTATGCCCGAGGGCACTACACCATTGGCAAGGAGATCATTGACCTCGTGTTGGACCGAATTCGCAAGCTG
GCTGACCAGTGCACCGGTCTTCAGGGCTTCTTGGTTTTCCACAGCTTTGGTGGGGGAACTGGTTCTGGGTTCACC
TCGCTGCTCATGGAACGTCTCTCAGTTGATTATGGCAAGAAGTCCAAGCTGGAGTTCTCCATTTACCCGGCGCCC
CAGGTTTCCACAGCTGTAGTTGAGCCCTACAACTCCATCCTCACCACCCACACCACCCTGGAGCACTCTGATTGT
GCCTTCATGGTAGACAATGAGGCCATCTATGACATCTGTCGTAGAAACCTCGATATCGAGCGCCCAACCTACACT
AACCTTAACCGCCTTATTAGCCAGATTGTGTCCTCCATCACTGCTTCCCTGAGATTTGATGGAGCCCTGAATGTT
GACCTGACAGAATTCCAGACCAACCTGGTGCCCTACCCCCGCATCCACTTCCCTCTGGCCACATATGCCCCTGTC
ATCTCTGCTGAGAAAGCCTACCATGAACAGCTTACTGTAGCAGAGATCACCAATGCTTGCTTTGAGCCAGCCAAC
CAGATGGTGAAATGTGACCCTCGCCATGGTAAATACATGGCTTGCTGCCTGTTATACCGTGGTGACGTGGTTCCC
AAAGATGTCAATGCTGCCATTGCCACCATCAAAACCAAGCGTACCATCCAGTTTGTGGATTGGTGCCCCACTGGC
TTCAAGGTTGGCATTAATTACCAGCCTCCCACTGTGGTGCCTGGCGGAGACCTGGCCAAGGTACAGAGAGCTGTG
TGCATGCTGAGCAATACCACAGCTGTTGCCGAGGCCTGGGCTCGCCTGGACCACAAGTTTGACCTGATGTATGCC
AAGCGTGCCTTTGTTCACTGGTACGTGGGTGAGGGGATGGAGGAAGGCGAGTTTTCAGAGGCCCGTGAGGACATG
GCTGCCCTTGAGAAGGATTATGAGGAGGTTGGAGCAGATAGTGCTGACGGAGAGGATGAGGGTGAAGAGTAT**TAA**

FIGURE 641

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDLEPTVI
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIRKLADQCTGLQGFLVFHSFGGGTGSGFT
SLLMERLSVDYGKKSKLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT
NLNRLISQIVSSITASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISAEKAYHEQLTVAEITNACFEPAN
QMVKCDPRHGKYMACCLLYRGDVVPKDVNAAIATIKTKRTIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV
CMLSNTTAVAEAWARLDHKFDLMYAKRAFVHWYVGEGMEEGEFSEAREDMAALEKDYEEVGADSADGEDEGEEY

FIGURE 642

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AGTGTGGTTTTAGTTTTTCCTAAGAAGTGGCGTGGTTTGGGGCTTTATATCCGGGAGGAGCATATGTACGCAAAT
CCTGGGGCGTTTGCAAACCCGGATCCGGGGCGTCTGGCCCCATGCCCGGCCGGGCGTTTGAGGGCTACTGCCACG
CAGCGTTTCTGGAGCCTGCCGGCTGGTGCCCTGGTGGCCTTTATCTCTGTCCCCCTTTGTCCTCTTTATCTCAGG
CTCTCCAGGAGGCCGGGGGGCCCACTCCGCCTATCGCTCCCCTCGGCTACGCTGCCACTCCAATGCCCCGCAGGT
CGCGAGCTGCTGTTCTTTCGAAGGCGCCGGAGAACCAGGGGCGTCCCGCGCCACCTCTGACTCGGAGCAGCGCCG
AGCACTGACGCTCCCGCCCTTGGGCAAGGACGCCAGTGCGCCCGCGCGCGTCCCTCTGCGCGGCAGCCCGTCGCG
GGCCCTCAAGGGGAAGCCCAGGCCAGG**ATG**GCCCCGGGTCGCGCGGTGGCCGGGCTCCTGTTGCTGGCGGCCGCC
GGCCTCGGAGGAGTGGCGGAGGGGCCAGGGCTAGCCTTCAGCGAGGATGTGCTGAGCGTGTTCGGCGCGAATCTG
AGCCTGTCGGCGGCGCAGCTCCAGCACTTGCTGGAGCAGATGGGAGCCGCCTCCCGCGTGGGCGTCCCGGAGCCT
GGCCAGCTGCACTTCAACCAGTGTTTAACTGCTGAAGAGATCTTTTCCCTTCATGGCTTTTCAAATGCTACCCAA
ATAACCAGCTCCAAATTCTCTGTCATCTGTCCAGCAGTCTTACAGCAATTGAACTTTCACCCATGTGAGGATCGG
CCCAAGCACAAAACAAGACCAAGTCATTCAGAAGTTTGGGGATATGGATTCCTGTCAGTGACGATTATTAATCTG
GCATCTCTCCTCGGATTGATTTTGACTCCACTGATAAAGAAATCTTATTTCCCAAAGATTTTGACCTTTTTTGTG
GGGCTGGCTATTGGGACTCTTTTTTCAAATGCAATTTTCCAACTTATTCCAGAGGCATTTGGATTTGATCCCAAA
GTCGACAGTTATGTTGAGAAGGCAGTTGCTGTGTTTGGTGGATTTTACCTACTTTTCTTTTTTGAAAGAATGCTA
AAGATGTTATTAAAGACATATGGTCAGAATGGTCATACCCACTTTGGAAATGATAACTTTGGTCCTCAAGAAAAA
ACTCATCAACCTAAAGCATTACCTGCCATCAATGGTGTGACATGCTATGCAAATCCTGCTGTCACAGAAGCTAAT
GGACATATCCATTTTGATAATGTCAGTGTGGTATCTCTACAGGATGGAAAAAAAGAGCCAAGTTCATGTACCTGT
TTGAAGGGGCCCAAACTGTCAGAAATAGGGACGATTGCCTGGATGATAACGCTCTGCGATGCCCTCCACAATTTC
ATCGATGGCCTGGCGATTGGGGCTTCCTGCACCTTGTCTCTCCTTCAGGGACTCAGTACTTCCATAGCAATCCTA
TGTGAGGAGTTTCCCCACGAGTTAGGAGACTTTGTGATCCTACTCAATGCAGGGATGAGCACTCGACAAGCCTTG
CTATTCAACTTCCTTTCTGCATGTTCCTGCTATGTTGGGCTAGCTTTTGGCATTTTGGTGGGCAACAATTTCGCT
CCAAATATTATATTTGCACTTGCTGGAGGCATGTTCCTCTATATTTCTCTGGCAGATATGTTTCCAGAGATGAAT
GATATGCTGAGAGAAAAGGTAACTGGAAGAAAAACCGATTTCACCTTCTTCATGATTCAGAATGCTGGAATGTTA
ACTGGATTCACAGCCATTCTACTCATTACCTTGTATGCAGGAGAAATCGAATTGGAG**TAA**TAGAAAATGGAAGAT
GGTGTTGTTAATAAAGGCATTTAATAGATAAAAACATCTCCAAAAAGGATTTTGAAGCTGATCCTATTTAGTTAA
AAAGATAATTTTGCTTTCAACTGTAGGTCCAGAAAACTAATTATTGGCATCAGTCTGTGAAATAGTCCATTATTT
GTTGTTAAAAATGCTTCAAAAGGTTTTCAGTGTCAGTCTGAGATGCCTGGTATATAGGAGCCTTTGGGAAATACT
TATTTTTCAGTATTCCATGCATATTAGATATCACCATGAAGCAAGAGACATGCATTCTATAATCATGTAGACACT
CAGACTCAGGGGAAAATACAAGTTATATCCTGAAAGCCTTTAAAACTCTATGGTAGGATCAAAGATTCAAATGGT
TTCAGAGAGGTTTTATTTCAATTAATTTGTTCTAGTGCTTTCAAGAGCAAGTACATCAAAATGTAGAAGGTAAAA
TGTATGCAACACTAATATAAATTATTCCAAGTCTTTAAGGAGCCAAAGAAAAAAAGATTTCTCACAGCTTTTTG
TTCTGTTTTGTATTTCAATTAGGAACTTGCAGTATTATTTTGAAACCATTCTAAATAATAGGAGTTAGGAAAT
AAATAAAGTTTTGCTAGCCCTGCTAAGTTCAGGCTTAGAGGCTTATCGCTAAGTXTAAACTTCACCAGATTCCAC
GAAAAGCTGGATAGCTTTTTTTCTGACTTATGTTGTGGTTGCACCCCTCACAAATGGCAGAACAGTATGTAAAGC
TGGTAACACCTCGGTTTCAGTGCACCATGTGTTTGCTTTGTGAAGGTGAAGAATATGTTGGTTTAGAGAAAGAAA
TTGGATGTAATTTTATGCAATTTACTTTTAAAGACAAACATAACTATTTAGCAGAGAATATTTTAATAAATGCAA
AACAACAGCTGGACTGCTGTACATCAAGGACAGATTAACTGGAAAACATATGTTCCTTATGTGTGATTGAGAGCC
ATTCAGAAAGACTTCCTTTGTGTTCAGCCTATACTTTTCCATATGGTATACCTTGAAAAAAATTAGCACACCAT
GGTTATTTTTCTACCTTTTATAAAAGACAGAGCCTGTTTACTCATTTAGAAGATAGAGAAAATTGGTCTAAAATT
GAACATCCTAGATTCACACTCCCAAGTCACTTAAGGTGATTTGATGGTGAGGAAAATGATTGACAAAGCCCAACA
ATGATCTCAGGAATTACATTTTCCAACAGACCAAAAAATGTTTTCATGTAGCAGCAATGCAGATTTGGTGAATAT
TTAATATATATTTTAGTATGTATTTCACTTTATGACTGACAATTAAAAAATATTGTTTGGCCAAATAGTAAACAC
CCTTTTGAAACCATGAAAAAA
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FIGURE 643

MAPGRAVAGLLLLAAAGLGGVAEGPGLAFSEDVLSVFGANLSLSAAQLQHLLEQMGAASRVGVPEPGQLHFNQCL
TAEEIFSLHGFSNATQITSSKFSVICPAVLQQLNFHPCEDRPKHKTRPSHSEVWGYGFLSVTIINLASLLGLILT
PLIKKSYFPKILTFFVGLAIGTLFSNAIFQLIPEAFGFDPKVDSYVEKAVAVFGGFYLLFFFERMLKMLLKTYGQ
NGHTHFGNDNFGPQEKTHQPKALPAINGVTCYANPAVTEANGHIHFDNVSVVSLQDGKKEPSSCTCLKGPKLSEI
GTIAWMITLCDALHNFIDGLAIGASCTLSLLQGLSTSIAILCEEFPHELGDFVILLNAGMSTRQALLFNFLSACS
CYVGLAFGILVGNNFAPNIIFALAGGMFLYISLADMFPEMNDMLREKVTGRKTDFTFFMIQNAGMLTGFTAILLI
TLYAGEIELE

FIGURE 644

GGGGCTACCGCGCCTTTGCTTCCTGGCGCACGCGGAGCCTCCTGGAGCCTGCCACCATCCTGCCTACTACGTGCT
GCCCTGCGCCCGCAGCC**ATG**TGCCGCACCCTGGCCGCCTTCCCCACCACCTGCCTGGAGAGAGCCAAAGAGTTCA
AGACACGTCTGGGGATCTTTCTTCACAAATCAGAGCTGGGCTGCGATACTGGGAGTACTGGCAAGTCCGAGTGGG
GCAGTAAACACAGCAAAGAGAATAGAAACTTCTCAGAAGATGTGCTGGGGTGGAGAGAGTCGTTCGACCTGCTGC
TGAGCAGTAAAAATGGAGTGGCTGCCTTCCACGCTTTCCTGAAGACAGAGTTCAGTGAGGAGAACCTGGAGTTCT
GGCTGGCCTGTGAGGAGTTCAAGAAGATCCGATCAGCTACCAAGCTGGCCTCCAGGGCACACCAGATCTTTGAGG
AGTTCATTTGCAGTGAGGCCCCTAAAGAGGTCAACATTGACCATGAGACCCGCGAGCTGACGAGGATGAACCTGC
AGACTGCCACAGCCACATGCTTTGATGCGGCTCAGGGGAAGACACGTACCCTGATGGAGAAGGACTCCTACCCAC
GCTTCCTGAAGTCGCCTGCTTACCGGGACCTGGCTGCCCAAGCCTCAGCCGCCTCTGCCACTCTGTCCAGCTGCA
GCCTGGACGAGCCCTCACACACC**TGA**GTCTCCACGGCAGTGAGGAAGCCAGCCGGGAAGAGAGGTTGAGTCACCC
ATCCCCGAGGTGGCTGCCCCTGTGTGGGAGGCAGGTTCTGCAAAGCAAGTGCAAGAGGACAAAAAAAAAAAAAAA
AAAAAAAAAAATGCGCTCCAGCAGCCTGTTTGGGAAGCAGCAGTCTCTCCTTCAGATACTGTGGGACTCATGCTG
GAGAGGAGCCGCCCACTTCCAGGACCTGTGAATAAGGGCTAATGATGAGGGTTGGTGGGGCTCTCTGTGGGGCAA
AAAGGTGGTATGGGGGTTAGCACTGGCTCTCGTTCTCACCGGAGAAGGAAGTGTTCTAGTGTGGTTTAGGAAACA
TGTGGATAAAGGGAACCATGAAAATGAGAGGAGGAAAGACATCCAGATCAGCTGTTTTGCCTGTTGCTCAGTTGA
CTCTGATTGCATCCTGTTTTCCTAATTCCCAGACTGTTCTGGGCACGGAAGGGACCCTGGATGTGGAGTCTTCCC
CTTTGGCCCTCCTCACTGGCCTCTGGGCTAGCCCAGAGTCCCTTAGCTTGTACCTCGTAACACTCCTGTGTGTCT
GTCCAGCCTTGCAGTCATGTCAAGGCCAGCAAGCTGATGTGACTCTTGCCCCATGCGAGATATTTATACCTCAAA
CACTGGCCTGTGAGCCCTTTCCAAGTCAGTGGAGAGCCCTGAAAGGAGGCTCACTTGAATCCAGCTCAGTGCTCT
GGGTGGCCCCCTGCAGGTGGCCCCTGACCCTGCGTTGCAGCAGGGTCCACCTGTGAGCAGGCCCGCCCTGGGGCC
TCTTCCTGGATGTGCCCTCTCTGAGTTCTGTGCTGTCTCTTGGAGGCAGGGCCCAGGAGAACAAAGTGTGGAGGC
CTCGGGGAGTGGCTTTTCCAGCTCTCATGCCCCGCAGTGTGGAACAAGGCAGAAAAGGATCCTAGGAAATAAGTC
TCTTGGCGGTCCCTGAGAGTCCTGCTGAAATCCAGCCAGTGTTTTTGTGGTATGAGAACAGGCAAAAAGAGATG
CCCCGAGATAGAAGGGGAGCCTTGTGTTTCTTTCCTGCAGACGTGAGATGAACACTGGAGTGGGCAGAGGTGGCM
CAGGACCATGGCACCCTTAGAĠTGCAGAAGCTGGGGGGAGAGGCTGCTTCGAAGGGCAGGACTGGGGATACCTGC
CTGTCACCTCAGGGCATCACTGAACAAACATTTCCTGATGGSAACTCCTGCGGCAGAGCCCAGGCTGGGGAAGTG
AACTACCCAGGGCAGCCCCTTTGTGGCCCAGGATAATCAACACTGTTCTCTCTGTACCATGAGCTCCTCCAGGAG
ATTATTTAAGTGTATTGTATCATTGGTTTTCTGTGATTGTCATAACATTGTTTTGTTATTGTTGGTGCTGTTGT
TATTTATTATTGTAATTTCAGTTTGCCTCTACTGGAGAATCTCAGCAGGGGTTTCAGCCTGACTGTCTCCCTTTC
TCTACCAGACTCTACCTCTGAATGTGCTGGGAACCTCTTGGAGCCTGTCAGGAACTCCTCACTGTTTAAATATTT
ATTTATTGTGACAAATGGAGCTGGTTTCCTAGATATGAATGATGTTTGCAATCCCCATTTTCCTGTTTCAGCATG
TTATATTCTTATAAAATAAAAGCAAAGTCAAATATGAAAAAAAAAAAAAAAAAAAA

FIGURE 645

MCRTLAAFPTTCLERAKEFKTRLGIFLHKSELGCDTGSTGKSEWGSKHSKENRNFSEDVLGWRESFDLLLSSKNG
VAAFHAFLKTEFSEENLEFWLACEEFKKIRSATKLASRAHQIFEEFICSEAPKEVNIDHETRELTRMNLQTATAT
CFDAAQGKTRTLMEKDSYPRFLKSPAYRDLAAQASAASATLSSCSLDEPSHT

FIGURE 646

GGGGCTACCGCGCCTTTGCTTCCTGGCGCACGCGGAGCCTCCTGGAGCCTGCCACCATCCTGCCTACTACGTGCT
GCCCTGCGCCCGCAGCC**ATG**TGCCGCACCCTGGCCGCCTTCCCCACCACCTGCCTGGAGAGAGCCAAAGAGTTCA
AGACACGTCTGGGGATCTTTCTTCACAAATCAGAGCTGGGCTGCGATACTGGGAGTACTGGCAAGTCCGAGTGGG
GCAGTAAACACAGCAAAGAGAATAGAAACTTCTCAGAAGATGTGCTGGGGTGGAGAGAGTCGTTCGACCTGCTGC
TGAGCAGTAAAAATGGAGTGGCTGCCTTCCACGCTTTCCTGAAGACAGAGTTCAGTGAGGAGAACCTGGAGTTCT
GGCTGGCCTGTGAGGAGTTCAAGAAGATCCGATCAGCTACCAAGCTGGCCTCCAGGGCACACCAGATCTTTGAGG
AGTTCATTTGCAGTGAGGCCCCTAAAGAGGTCAACATTGACCATGAGACCCGCGAGCTGACGAGGATGAACCTGC
AGACTGCCACAGCCACATGCTTTGATGCGGCTCAGGGGAAGACACGTACCCTGATGGAGAAGGACTCCTACCCAC
GCTTCCTGAAGTCGCCTGCTTACCGGGACCTGGCTGCCCAAGCCTCAGCCGCCTCTGCCACTCTGTCCAGCTGCA
GCCTGGACGAGCCCTCACACACC**TGA**GTCTCCACGGCAGTGAGGAAGCCAGCCGGGAAGAGAGGTTGAGTCACCC
ATCCCCGAGGTGGCTGCCCCTGTGTGGGAGGCAGGTTCTGCAAAGCAAGTGCAAGAGGACAAAAAAAAAAAAAAA
AAAAAAAAAAAATGCGCTCCAGCAGCCTGTTTGGGAAGCAGCAGTCTCTCCTTCAGATACTGTGGGACTCATGCTG
GAGAGGAGCCGCCCACTTCCAGGACCTGTGAATAAGGGCTAATGATGAGGGTTGGTGGGGCTCTCTGTGGGGCAA
AAAGGTGGTATGGGGGTTAGCACTGGCTCTCGTTCTCACCGGAGAAGGAAGTGTTCTAGTGTGGTTTAGGAAACA
TGTGGATAAAGGGAACCATGAAAATGAGAGGAGGAAAGACATCCAGATCAGCTGTTTTGCCTGTTGCTCAGTTGA
CTCTGATTGCATCCTGTTTTCCTAATTCCCAGACTGTTCTGGGCACGGAAGGGACCCTGGATGTGGAGTCTTCCC
CTTTGGCCCTCCTCACTGGCCTCTGGGCTAGCCCAGAGTCCCTTAGCTTGTACCTCGTAACACTCCTGTGTGTCT
GTCCAGCCTTGCAGTCATGTCAAGGCCAGCAAGCTGATGTGACTCTTGCCCCATGCGAGATATTTATACCTCAAA
CACTGGCCTGTGAGCCCTTTCCAAGTCAGTGGAGAGCCCTGAAAGGAGGCTCACTTGAATCCAGCTCAGTGCTCT
GGGTGGCCCCCTGCAGGTGGCCCCTGACCCTGCGTTGCAGCAGGGTCCACCTGTGAGCAGGCCCGCCCTGGGGCC
TCTTCCTGGATGTGCCCTCTCTGAGTTCTGTGCTGTCTCTTGGAGGCAGGGCCCAGGAGAACAAAGTGTGGAGGC
CTCGGGGAGTGGCTTTTCCAGCTCTCATGCCCCGCAGTGTGGAACAAGGCAGAAAAGGATCCTAGGAAATAAGTC
TCTTGGCGGTCCCTGAGAGTCCTGCTGAAATCCAGCCAGTGTTTTTTGTGGTATGAGAACAGGCAAAAAGAGATG
CCCCGAGATAGAAGGGGAGCCTTGTGTTTCTTTCCTGCAGACGTGAGATGAACACTGGAGTGGGCAGAGGTGGCM
CAGGACCATGGCACCCTTAGAGTGCAGAAGCTGGGGGGAGAGGCTGCTTCGAAGGGCAGGACTGGGGATACCTGC
CTGTCACCTCAGGGCATCACTGAACAAACATTTCCTGATGGSAACTCCTGCGGCAGAGCCCAGGCTGGGGAAGTG
AACTACCCAGGGCAGCCCCTTTGTGGCCCAGGATAATCAACACTGTTCTCTCTGTACCATGAGCTCCTCCAGGAG
ATTATTTAAGTGTATTGTATCATTGGTTTTCTGTGATTGTCATAACATTGTTTTGTTATTGTTGGTGCTGTTGT
TATTTATTATTGTAATTTCAGTTTGCCTCTACTGGAGAATCTCAGCAGGGGTTTCAGCCTGACTGTCTCCCTTTC
TCTACCAGACTCTACCTCTGAATGTGCTGGGAACCTCTTGGAGCCTGTCAGGAACTCCTCACTGTTTAAATATTT
ATTTATTGTGACAAATGGAGCTGGTTTCCTAGATATGAATGATGTTTGCAATCCCCATTTTCCTGTTTCAGCATG
TTATATTCTTATAAAATAAAAGCAAAGTCAAATATGAAAAAAAAAAAAAAAAAAAA

FIGURE 647

MCRTLAAFPTTCLERAKEFKTRLGIFLHKSELGCDTGSTGKSEWGSKHSKENRNFSEDVLGWRESFDLLLSSKNG
VAAFHAFLKTEFSEENLEFWLACEEFKKIRSATKLASRAHQIFEEFICSEAPKEVNIDHETRELTRMNLQTATAT
CFDAAQGKTRTLMEKDSYPRFLKSPAYRDLAAQASAASATLSSCSLDEPSHT

FIGURE 648

GAGCCCAGCCGAGCGTCCGCCGCTGCCCGTGCGCCTCTGCGCTCCGCGCC**ATG**GCCGGCCTCAACTCCCTGGAGG
CGGTGAAACGCAAGATCCAGGCCCTGCAGCAGCAGGCGGACGAGGCGGAAGACCGCGCGCAGGGCCTGCAGCGGG
AGCTGGACGGCGAGCGCGAGCGGCGCGAGAAAGCTGAAGGTGATGTGGCCGCCCTCAACCGACGCATCCAGCTCG
TTGAGGAGGAGTTGGACAGGGCTCAGGAACGACTGGCCACGGCCCTGCAGAAGCTGGAGGAGGCAGAAAAAGCTG
CAGATGAGAGTGAGAGAGGAATGAAGGTGATAGAAAACCGGGCCATGAAGGATGAGGAGAAGATGGAGATTCAGG
AGATGCAGCTCAAAGAGGCCAAGCACATTGCGGAAGAGGCTGACCGCAAATACGAGGAGGTAGCTCGTAAGCTGG
TCATCCTGGAGGGTGAGCTGGAGAGGGCAGAGGAGCGTGCGGAGGTGTCTGAACTAAAATGTGGTGACCTGGAAG
AAGAACTCAAGAATGTTACTAACAATCTGAAATCTCTGGAGGCTGCATCTGAAAGTATTCTGAAAAGGAGGACA
AATATGAAGAAGAAATTAAACTTCTGTCTGACAAACTGAAAGAGGCTGAGACCCGTGCTGAATTTGCAGAGAGAA
CGGTTGCAAAACTGGAAAAGACAATTGATGACCTGGAAGAGAAACTTGCCCAGGCCAAAGAAGAGAACGTGGGCT
TACATCAGACACTGGATCAGACACTAAACGAACTTAACTGTATA**TAA**GCAAAACAGAAGAGTCTTGTTCCAACAG
AAACTCTGGAGCTCCGTGGGTCTTTCTCTTCTCTTGTAAGAAGTTCCTTTTGTTATTGCCATCTTCGCTTTGCTG
GAAATGTCAAGCAAATTATGAATACATGACCAAATATTTTGTATCGGAGAAGCTTTGAGCACCAGTTAAATCTCA
TTCCTTCCCTTTTTTTTTCAAATGGCACCAGCTTTTTCAGCTCTCTTATTTTTTCCTTAAGTAGCATTTATTCCT
AAGGTAGGCAGGGTATTTCCTAGTAAGCATACTTTCTTAAGACGGAGGCCATTTGGTTCCTGGGAGAATAGGCAG
CCCCACACTTTGAAGAATACAGACCCCAGTATCTAGTCGTGGATATAATTAAAACGCTGAAGACCATAACCTTTT
GGGTCAACTGTTGGTCAAACTATAGGAGAGACCAGGGACCATCACATGGGTAGGGATTTTCCATCCAGAGCCAAT
AAAAGGACTGGTGGGGGCCGGGGGTGGCTATTGTGGGAAGTCATAACCCACAGATAGATCAACCTAAGAATCCTG
GCCCTTCTCCACTCTCCACCATGCAGGACAAACATCTTCTCAAGCAGTCAACGTAGAATGCTTGGGAAATAGTCA
TAATTACCCACATATAGTAATTAATAGATGGTAATTAATTGATCCTTGATGTGATGTTCTTTTGCATATTTCCTT
CATTCTAAAGTTGTTCCCTGGCCGGGAGCGTTTGCTTTCGCCTGTAATCCCAACACTTTGGGAGGCCAGGACAGA
TCACTTGAGGTCAGGAGTTCGAGACCAGCCCAGCCAACATGGCGAAACCATGTCTCTACTAAAAATACAAAAATT
ATGGTGACGCCTGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGGATCGCTTGAACCCAGGAAGTGGAG
ACTGCAGTGAGCCGATATCGCACCACAGCGCTCCAGCCTGGTCGACAGAGTGAGACTCCATCTCAAGAAAAAATA
AAAATAAAGTTGTTCTCTGAAGAGCAAATGTCTCATĊCAGTAATGACCCACTCAGCAGGAATATGGTGGAGTTC
AGTCCAATTCAGGTCAGCCATATCCAAAAGACCACAAGTCATTACTAAGTTGAGCAAAAGAGTTTTTATCTATTA
GCAGAAAGGGCCTCTCTGGCAGCAGAGATTAAAAACTGGCCCAACTTCATTTCCATACTTCAGGGAACAGCAAAT
TGAGGATTTACTTATCTAGGACTT

FIGURE 649

MAGLNSLEAVKRKIQALQQQADEAEDRAQGLQRELDGERERREKAEGDVAALNRRIQLVEEELDRAQERLATALQ
KLEEAEKAADESERGMKVIENRAMKDEEKMEIQEMQLKEAKHIAEEADRKYEEVARKLVILEGELERAEERAEVS
ELKCGDLEEELKNVTNNLKSLEAASEKYSEKEDKYEEEIKLLSDKLKEAETRAEFAERTVAKLEKTIDDLEEKLA
QAKEENVGLHQTLDQTLNELNCI

FIGURE 650

GTCCTGCCGAGCTGTGAGGGCAACGGAGGGGAAATAAAAGGGAACGGCTCCGAATCTGCCCCAGCGGCCGCTGCG
AGACCTCGGCGCCGACATCGCGACAGCGAAGCGCTTTGCACGCCAGGAAGGTCCCCTCTATGTGCTGCTGAGCCG
GTCCTGGACGCGACGAGCCCGCCCTCGGTCTTCGGAGCAGAAATCGCAAAAACGGAAGGACTGGA**ATG**GCAGAC
CATATGATGGCCATGAACCACGGGCGCTTCCCCGACGGCACCAATGGGCTGCACCATCACCCTGCCCACCGCATG
GGCATGGGGCAGTTCCCGAGCCCCCATCACCACCAGCAGCAGCAGCCCCAGCACGCCTTCAACGCCCTAATGGGC
GAGCACATACACTACGGCGCGGGCAACATGAATGCCACGAGCGGCATCAGGCATGCGATGGGGCCGGGGACTGTG
AACGGAGGGCACCCCCGAGCGCGCTGGCCCCGCGGCCAGGTTTAACAACTCCCAGTTCATGGGTCCCCCGGTG
GCCAGCCAGGGAGGCTCCCTGCCGGCCAGCATGCAGCTGCAGAAGCTCAACAACCAGTATTTCAACCATCACCCC
TACCCCCACAACCACTACATGCCGGATTTGCACCCTGCTGCAGGCCACCAGATGAACGGGACAAACCAGCACTTC
CGAGATTGCAACCCCAAGCACAGCGGCGGCAGCAGCACCCCCGGCGGCTCGGGCGGCAGCAGCACCCCCGGCGGC
TCTGGCAGCAGCTCGGGCGGCGGCGCGGGCAGCAGCAACAGCGGCGGCGGCAGCGGCAGCGGCAACATGCCCGCC
TCCGTGGCCCACGTCCCCGCTGCAATGCTGCCGCCCAATGTCATAGACACTGATTTCATCGACGAGGAAGTTCTT
ATGTCCTTGGTGATAGAAATGGGTTTGGACCGCATCAAGGAGCTGCCCGAACTCTGGCTGGGGCAAAACGAGTTT
GATTTATGACGGACTTCGTGTGCAAACAGCAGCCCAGCAGAGTGAGCTGT**TGA**CTCGATCGAAACCCCGGCGAA
AGAAATCAAACCCCCAACTTCTTCGGCGTGAATTAAAAGAAACATTCCCTTAGACACAGTATCTCACTTTTCAGA
TCTTGAAAGGTTTGAGAACTTGGAAACAAAGTAAACTATAAACTTGTACAAATTGGTTTTAAAAAAAATTGCTGC
CACTTTTTTTTCCTGTTTTTGTTTCGTTTTTGTAGCCTTGACATTCACCCACCTCCCTTATGTAGTTGAAATATC
TAGCTAACTTGGTCTTTTTCGTTGTTTGTTTTTACTCCTTTCCCTCACTTTCTCCAGTGCTCAACTGTTAGATAT
TAATCTTGGCAAACTGCTTAATCTTGTGGATTTTGTAGATGGTTTCAAATGACTGAACTGCATTCAGATTTACGA
GTGAAAGGAAAAATTGCATTAGTTGGTTGCATGAACTTTGAAGGGCAGATATTACTGCACAAACTGCCATCTCGC
TTCATTTTTTTAACTATGCATTTGAGTACAGACTAATTTTTAAAATATGCTAAACTGGAAGATTAAACAGATGTG
GCCCAAACTGTTCTGGATCAGGAAAGTCATACTGTTCACTTTCAAGTTGGCTGTCCCCCCCGCCGCCCCCCCCCA
CCCCCATATGTACAGATGATAATAGGGTGTGGAATGTCGTCAGTGGCAAACATTTCACAGATTATTTGTTTCTG
TCTTCAACATTTTTGACACTGTGCTAATAGTTATATTCAGTACATGAAAAGATACTACTGTGTTGAAAGCCTTTT
AGGAAATTTTGACAGTATTTTTGTACAAAACATTTTTTTGAAAAAATACTTGTTAATTTATTCTATTTTAATTTG
CCAATGTCAATAAAAAGTTAAGAAATAAAAAAAAAAAAAAAAAA

FIGURE 651

MADHMMAMNHGRFPDGTNGLHHHPAHRMGMGQFPSPHHHQQQQPQHAFNALMGEHIHYGAGNMNATSGIRHAMGP
GTVNGGHPPSALAPAARFNNSQFMGPPVASQGGSLPASMQLQKLNNQYFNHHPYPHNHYMPDLHPAAGHQMNGTN
QHFRDCNPKHSGGSSTPGGSGGSSTPGGSGSSSGGGAGSSNSGGGSGSGNMPASVAHVPAAMLPPNVIDTDFIDE
EVLMSLVIEMGLDRIKELPELWLGQNEFDFMTDFVCKQQPSRVSC

FIGURE 652

AATCGCGAAACCCGGCGAGCGGCGCGCTGGCTATCGAGCGAGCGGGGCGGAACCGGGAGTTGCGCCGCCGCTCGG
GCGCCGGGCTCCGTCGCGGCCGCAGCCCCGCGGGTCGCCCTCCCGTGCCTCGCCCGCGGACACCCTGGCCGTGGA
CACCCTGGCCGTGGGCACCCGCGGGGCGCGGCGCGGGCGCTGCGCGGCGGCGGCGGCGGC**ATG**AAGGTCACGTCG
CTCGACGGGCGCCAGCTGCGCAAGATGCTCCGCAAGGAGGCGGCGGCGCGCTGCGTGGTGCTCGACTGCCGGCCC
TATCTGGCCTTCGCTGCCTCGAACGTGCGCGGCTCGCTCAACGTCAACCTCAACTCGGTGGTGCTGCGGCGGGCC
CGGGGCGGCGCGGTGTCGGCGCGCTACGTGCTGCCCGACGAGGCGGCGCGCGCGGCTCCTGCAGGAGGGCGGC
GGCGGCGTCGCGGCCGTGGTGGTGCTGGACCAGGGCAGCCGCCACTGGCAGAAGCTGCGAGAGGAGAGCGCCGCG
CGTGTCGTCCTCACCTCGCTACTCGCTTGCCTACCCGCCGGCCCGCGGGTCTACTTCCTCAAAGGGGGATATGAG
ACTTTCTACTCGGAATATCCTGAGTGTTGCGTGGATGTAAAACCCATTTCACAAGAGAAGATTGAGAGTGAGAGA
GCCCTCATCAGCCAGTGTGGAAAACCAGTGGTAAATGTCAGCTACAGGCCAGCTTATGACCAGGGTGGCCCAGTT
GAAATCCTTCCCTTCCTCTACCTTGGAAGTGCCTACCATGCATCCAAGTGCGAGTTCCTCGCCAACTTGCACATC
ACAGCCCTGCTGAATGTCTCCCGACGGACCTCCGAGGCCTGCATGACCCACCTACACTACAAATGGATCCCTGTG
GAAGACAGCCACACGGCTGACATTAGCTCCCACTTTCAAGAAGCAATAGACTTCATTGACTGTGTCAGGGAAAAG
GGAGGCAAGGTCCTGGTCCACTGTGAGGCTGGGATCTCCCGTTCACCCACCATCTGCATGGCTTACCTTATGAAG
ACCAAGCAGTTCCGCCTGAAGGAGGCCTTCGATTACATCAAGCAGAGGAGGAGCATGGTCTCGCCCAACTTTGGC
TTCATGGGCCAGCTCCTGCAGTACGAATCTGAGATCCTGCCCTCCACGCCCAACCCCCAGCCTCCCTCCTGCCAA
GGGGAGGCAGCAGGCTCTTCACTGATAGGCCATTTGCAGACACTGAGCCCTGACATGCAGGGTGCCTACTGCACA
TTCCCTGCCTCGGTGCTGGCACCGGTGCCTACCCACTCAACAGTCTCAGAGCTCAGCAGAAGCCCTGTGGCAACG
GCCACATCCTGC**TAA**AACTGGGATGGAGGAATCGGCCCAGCCCCAAGAGCAACTGTGATTTTTGTTTTTAAGACT
CATGGACATTTCATACCTGTGCAATACTGAAGACCTCATTCTGTCATGCTGCCCCAGTGAGATAGTGAGTGGTCA
CCAGGCTTGCAAATGAACTTCAGACGGACCTCAGGGTAGGTTCTCGGGACTGAAGGAAGGCCAAGCCATTACGGG
AGCACAGCATGTGCTGACTACTGTACTTCCAGACCCCTGCCCTCTTGGGACTGCCCAGTCCTTGCACCTCAGAGT
TCGCCTTTTCATTTCAAGCATAAGCCAATAAATACCTGCAGCAACGTGGGAGAAAGAAGTTGCTGGACCAGGAGA
AAAGGCAGTTATGAAGCCAATTCATTTTGAAGGAAGCACAATTTCCACCTTATTTTTTGAACTTTGGCAGTTTCA
ATGTCTGTCTCTGTTGCTTCGGGGCATAAGCTGATCACCGTCTAGTTGGGAAAGTCACCCTACAGGGTTTGTAGG
GACATGATCAGCATCCTGATTTGAACCCTGAAATGTTGTGTAGACACCCTCTTGGGTCCAATGAGGTAGTTGGTT
GAAGTAGCAAGATGTTGGCTTTTCTGGATTTTTTTTGCCATGGGTTCTTCACTGACCTTGGACTTTGGCATGATT
CTTAGTCATACTTGAACTTGTCTCATTCCACCTCTTCTCAGAGCAACTCTTCCTTTGGGAAAAGAGTTCTTCAGA
TCATAGACCAAAAAAGTCATACCTTCGAGGTGGTAGCAGTAGATTCCAGGAGGAGAAGGGTACTTGCTAGGTATC
CTGGGTCAGTGGCGGTGCAAACTGGTTTCCTCAGCTGCCTGTCCTTCTGTGTGCTTATGTCTCTTGTGACAATTG
TTTTCCTCCCTGCCCCTGGAGGTTGTCTTCAACTGTGGACTTCTGGGATTTGCAGATTTTGCAACGTGGTACTAC
TTTTTTTTCTTTTTGTCTGTTAGTTATTTCTCCAGGGGAAAAGGCAATAATTTTCTAAGACCCGTGTGAATGTGA
AGAAAAGCAGTATGTTACTGGTTGTTGTTGTTGTTCTTGTTTTTTATATGTAAAATAAAAATAGTGAAAGGAG

FIGURE 653

MKVTSLDGRQLRKMLRKEAAARCVVLDCRPYLAFAASNVRGSLNVNLNSVVLRRARGGAVSARYVLPDEAARARL
LQEGGGGVAAVVVLDQGSRHWQKLREESAARVVLTSLLACLPAGPRVYFLKGGYETFYSEYPECCVDVKPISQEK
IESERALISQCGKPVVNVSYRPAYDQGGPVEILPFLYLGSAYHASKCEFLANLHITALLNVSRRTSEACMTHLHY
KWIPVEDSHTADISSHFQEAIDFIDCVREKGGKVLVHCEAGISRSPTICMAYLMKTKQFRLKEAFDYIKQRRSMV
SPNFGFMGQLLQYESEILPSTPNPQPPSCQGEAAGSSLIGHLQTLSPDMQGAYCTFPASVLAPVPTHSTVSELSR
SPVATATSC

FIGURE 654

GGCACGAGGAAGCTACTCAGATAAGAGGCTCCAAGAGGACATTTTTGGATGTGAAAAACAATGAGAAGGAGGACA
ACACACATTTACAATCGTCTTAATTTTGTACTCAGAAAAAGGATGTGAAGACAATGCACAGGGAATACAATAGTT
TCAGATCTGTGTACAGTTTCCTTTTGCTTCATCTCCTGCAACAATGTAATGAAGACACCATGATATCATTAACAT
TTCACACAAAAGGAAAATGAGGCTGAAATGGTGTGGGCAAGGCCCAGGAATCTGGAGCATCCCTAACCAAGCAGC
AGAGCACCTGGGATAGAGAAAGTGCTCAAGAATGTTCACTTACTGATTACTACAATCAAAAAAAGATACGACACT
AATTTACCACATTCTTCTTACTTATTTTATGAGATACTATTCTTCCAAGGTGGAGAAAGTGGAGAAAGTAGAGTG
ACGCAGCTAAGGGAGTAAATCGACCCTCAGCCAACAAGTGGCAAAAGCCTGAAGAAAGTGATCAAGATCACTGAT
GACCCCGCGGCCCATCTCCAAGGGGGCGGGTATCACAACCCCGACGCCACACCACGTATCATTCCGCAAAACTCC
CGCGCCTCCCACGCAGAACTGGCAAGAGGGAAGGCGAGACAGCAGTGAACAGCTGGTACGCAGCACCCACAGCAC
CGCGGCAGCAGCTAGTGCCGACTCCCGCCTAGCTCTTTTGACTCTGTTCGCGGGAAGAATGGGGAAACAGTAAGG
TTGCGGCGCCTCCCGCGAGACGAGGTACCTGAGGCTGGCCCCGCAGTCCCCGCCGCACCAGCACCGGAGCTTCA
CACCCCACTTCCGGGGTCAAGTCACCGCCGGGAATCCTGTGATCGCAGAAAGGTAGTCTCAGGTTCCGCCCCTAT
CCAAGTCCCGCCTCCACTGCCTCTCGCCCTGTATCTGTCAACTTCCGGGACGCCGCGCGTCACTAAGCAGCCAAT
CTCCACTTCCGGACTCATCCAGCCCCTTCTCCACCCCTTTCAGAGACAGCGCGATTGCGATTTAGGTTTCCGCGC
ATTTAATTGGCGAAGCTGGAGCGCTAGTCTTCGCTGATTGGTGCCGAGAAATCTGCCCCATAGACACCCGCGGGG
CGCACAGTTTCAGTCGTCCGTGGGTTTCCCGCCAGCCGCAGTCTTGGACCATAATC**ATG**GTGGACATGATGGACT
TGCCCAGGTCGCGCATCAACGCCGGCATGCTAGCTCAATTCATCGACAAGCCTGTCTGCTTCGTAGGGAGGCTGG
AAAAGATTCATCCCACCGGAAAAATGTTTATTCTTTCAGATGGAGAAGGAAAAAATGGAACCATCGAGTTGATGG
AACCCCTTGATGAAGAAATCTCTGGAATTGTGGAAGTGGTTGGAAGAGTAACCGCCAAGGCCACCATCTTGTGTA
CATCTTATGTCCAGTTTAAAGAAGATAGCCATCCTTTTGATCTTGGACTTTACAATGAAGCTGTGAAAATTATCC
ATGACTTCCCTCAGTTTTATCCTTTAGGGATTGTGCAACATGAT**TGA**TCTTGATGGATTTTCATACGATTGTAAA
TGAGCTATATTAAAGTCTATTAAAGGAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 655

MVDMMDLPRSRINAGMLAQFIDKPVCFVGRLEKIHPTGKMFILSDGEGKNGTIELMEPLDEEISGIVEVVGRVTA
KATILCTSYVQFKEDSHPFDLGLYNEAVKIIHDFPQFYPLGIVQHD

FIGURE 656

AGCCGCCGCCTCGCCGCTTCCCCTCGTCGGAGCGGCCGCTCGTCCGCCCGGCTTGAGGCCCGCGGGGAGCGCGGC
GCAATTCGTCGGCCCGCGGGGGGGCGGCCTCCCGGCATCTTCGCGGCGACCAAGGACTACCAGGAAGGGGAGCGG
CTGGG**ATG**GCGCGTCCGCGGCCCCGCGAGTACAAAGCGGGCGACCTGGTCTTCGCCAAGATGAAGGGCTACCCGC
ACTGGCCGGCCCGGATTGATGAACTCCCAGAGGGCGCTGTGAAGCCTCCAGCAAACAAGTATCCTATCTTCTTTT
TTGGCACCCATGAAACTGCATTTCTAGGTCCCAAAGACCTTTTTCCATATAAGGAGTACAAAGACAAGTTTGGAA
AGTCAAACAAACGGAAAGGATTTAACGAAGGATTGTGGGAAATAGAAAATAACCCAGGAGTAAAGTTTACTGGCT
ACCAGGCAATTCAGCAACAGAGCTCTTCAGAAACTGAGGGAGAAGGTGGAAATACTGCAGATGCAAGCAGTGAGG
AAGAAGGTGATAGAGTAGAAGAAGATGGAAAAGGCAAAAGAAAGAATGAAAAAGCAGGCTCAAAACGGAAAAAGT
CATATACTTCAAAGAAATCCTCTAAACAGTCCCGGAAATCTCCAGGAGATGAAGATGACAAAGACTGCAAAGAAG
AGGAAAACAAAAGCAGCTCTGAGGGTGGAGATGCGGGCAACGACACAAGAAACACAACTTCAGACTTGCAGAAAA
CCAGTGAAGGGACC**TAA**CTACCATAATGAATGCTGCATATTAAGAGAAACCACAAGAAGGTTATATGTTTGGTTG
TCTAATATTCTTGGATTTGATATGAACCAACACATAGTCCTTGTTGTCATTGACAGAACCCCAGTTTGTATGTAC
ATTATTCATATTCCTCTCTGTTGTGTTTCGGGGGGAAAAGACATTTTAGCCTTTTTTAAAAGTTACTGATTTAAT
TTCATGTTATTTGGTTGCATGAAGTTGCCCTTAACCACTAAGGATTATCAAGATTTTTGCGCAGACTTATACATG
TCTAGGATCCTTTTATCAAGGCAGTTATGATCATCGTTTTCCTGCCTTGACCCCACCATCATCAAACACTCAGTT
AAATATAAATTAACATTTTTTAGATGACCACTCAACATAATGCTTAAGAATGGAATTTCCTCTCTGTGACAGAAC
CCAGGAATTAATTCCTAAATACATAACGTTGGTATATTGAAGACGAAATTAAAATTGTCCTTCAGTTTTGAGGCC
ATGTGTAAAGTTTAACCATATTGTAAAATATCTATTCCGTATTAGAAATAGCTAGTTGACAGCTTATACTTCTCA
AAATTCATATTGTTATGTACACAAACTAAGTTTCTATATGTGAAGTTAGTGAGTCTTTTGTGTTACTCCAAAT
AAAGGCAATGATTTATTTTTTTCCCAGTGCCAATACAATTTTGAGCTAAGCACTCAAGGTGGATACTTTACATTT
TAAAGCTGGAATCAGCAACAGCCCTATGGGAAACCAGACAAAGCATTGACTTTAAATGTAGACTTTTAAAATAA
ACTGTTTTCTTTTGGAACTACAATTAGAATAGTTAATATTCATCCTTAAACCATTATTATGTGTACATTATTGTT
GCTATTGTGATAATAGAGAATTTTATTTATTTTTATGCCAGCTTATATTGTGAGAACACATTTAGTCAGTTTGGG
TTTTATCAATCCTGTTAATGCTTGTCCTTGGAACATCTTTCGCGTATTCACGGTTTGTAGTTGAAAAGTTTACTG
TAAAAAAATCAAAAACAAAAAAATGTATTGTTTTTACAGAATAAATTTATTGGGATGTGTACTGGGAGTAAGATT
TGAGGTTGTAAGCAAACTAAGTTAGTGTAATTTGGCTTCATATATGTAACGTGAGGTATTAATGTAATTCATATA
TTAAAGCAAAAATTGTTCGCAGC

FIGURE 657

MARPRPREYKAGDLVFAKMKGYPHWPARIDELPEGAVKPPANKYPIFFFGTHETAFLGPKDLFPYKEYKDKFGKS
NKRKGFNEGLWEIENNPGVKFTGYQAIQQQSSSETEGEGGNTADASSEEEGDRVEEDGKGKRKNEKAGSKRKKSY
TSKKSSKQSRKSPGDEDDKDCKEEENKSSSEGGDAGNDTRNTTSDLQKTSEGT

FIGURE 658

AGCCGCCGCCTCGCCGCTTCCCCTCGTCGGAGCGGCCGCTCGTCCGCCCGGCTTGAGGCCCGCGGGGAGCGCGGC
GCAATTCGTCGGCCCGCGGGGGGGCGGCCTCCCGGCATCTTCGCGGCGACCAAGGACTACCAGGAAGGGGAGCGG
CTGGG**ATG**GCGCGTCCGCGGCCCCGCGAGTACAAAGCGGGCGACCTGGTCTTCGCCAAGATGAAGGGCTACCCGC
ACTGGCCGGCCCGGATTGATGAACTCCCAGAGGGCGCTGTGAAGCCTCCAGCAAACAAGTATCCTATCTTCTTTT
TTGGCACCCATGAAACTGCATTTCTAGGTCCCAAAGACCTTTTTCCATATAAGGAGTACAAAGACAAGTTTGGAA
AGTCAAACAAACGGAAAGGATTTAACGAAGGATTGTGGGAAATAGAAAATAACCCAGGAGTAAAGTTTACTGGCT
ACCAGGCAATTCAGCAACAGAGCTCTTCAGAAACTGAGGGAGAAGGTGGAAATACTGCAGATGCAAGCAGTGAGG
AAGAAGGTGATAGAGTAGAAGAAGATGGAAAAGGCAAAAGAAAGAATGAAAAGCAGGCTCAAAACGGAAAAAGT
CATATACTTCAAAGAAATCCTCTAAACAGTCCCGGAAATCTCCAGGAGATGAAGATGACAAAGACTGCAAAGAAG
AGGAAAACAAAAGCAGCTCTGAGGGTGGAGATGCGGGCAACGACACAAGAAACACAACTTCAGACTTGCAGAAAA
CCAGTGAAGGGACC**TAA**CTACCATAATGAATGCTGCATATTAAGAGAAACCACAAGAAGGTTATATGTTTGGTTG
TCTAATATTCTTGGATTTGATATGAACCAACACATAGTCCTTGTTGTCATTGACAGAACCCCAGTTTGTATGTAC
ATTATTCATATTCCTCTCTGTTGTGTTTCGGGGGGAAAAGACATTTTAGCCTTTTTTAAAAGTTACTGATTTAAT
TTCATGTTATTTGGTTGCATGAAGTTGCCCTTAACCACTAAGGATTATCAAGATTTTTGCGCAGACTTATACATG
TCTAGGATCCTTTTATCAAGGCAGTTATGATCATCGTTTTCCTGCCTTGACCCCACCATCATCAAACACTCAGTT
AAATATAAATTAACATTTTTTAGATGACCACTCAACATAATGCTTAAGAATGGAATTTCCTCTCTGTGACAGAAC
CCAGGAATTAATTCCTAAATACATAACGTTGGTATATTGAAGACGAAATTAAAATTGTCCTTCAGTTTTGAGGCC
ATGTGTAAAGTTTAACCATATTGTAAAATATCTATTCCGTATTAGAAATAGCTAGTTGACAGCTTATACTTCTCA
AAATTCATATTGTTATGTACACAAACTAAGTTTCTATATGTGAAGTTAGTGAGTCTTTTGTGTTACTCCAAAAT
AAAGGCAATGATTTATTTTTTTCCCAGTGCCAATACAATTTTGAGCTAAGCACTCAAGGTGGATACTTTACATTT
TAAAGCTGGAATCAGCAACAGCCCTATGGGAAACCAGACAAAGCATTGACTTTTAAATGTAGACTTTTAAAATAA
ACTGTTTTCTTTTGGAACTACAATTAGAATAGTTAATATTCATCCTTAAACCATTATTATGTGTACATTATTGTT
GCTATTGTGATAATAGAGAATTTTATTTATTTTTATGCCAGCTTATATTGTGAGAACACATTTAGTCAGTTTGGG
TTTTATCAATCCTGTTAATGCTTGTCCTTGGAACATCTTTCGCGTATTCACGGTTTGTAGTTGAAAAGTTTACTG
TAAAAAAATCAAAAACAAAAAAATGTATTGTTTTTACAGAATAAATTTATTGGGATGTGTACTGGGAGTAAGATT
TGAGGTTGTAAGCAAACTAAGTTAGTGTAATTTGGCTTCATATATGTAACGTGAGGTATTAATGTAATTCATATA
TTAAAGCAAAAATTGTTCGCAGC

FIGURE 659

MARPRPREYKAGDLVFAKMKGYPHWPARIDELPEGAVKPPANKYPIFFFGTHETAFLGPKDLFPYKEYKDKFGKS
NKRKGFNEGLWEIENNPGVKFTGYQAIQQQSSSETEGEGGNTADASSEEEGDRVEEDGKGKRKNEKAGSKRKKSY
TSKKSSKQSRKSPGDEDDKDCKEEENKSSSEGGDAGNDTRNTTSDLQKTSEGT

FIGURE 660A

CCGTTCACGCGTTCGGTCCTCCTTGGCTGACTCACCGCCCTCGCCGCCGCACC**ATG**GACGCCCCCAGGCAGGTGG
TCAACTTTGGGCCTGGTCCCGCCAAGCTGCCGCACTCAGTGTTGTTAGAGATACAAAAGGAATTATTAGACTACA
AAGGAGTTGGCATTAGTGTTCTTGAAATGAGTCACAGGTCATCAGATTTTGCCAAGATTATTAACAATACAGAGA
ATCTTGTGCGGGAATTGCTAGCTGTTCCAGACAACTATAAGGTGATTTTTCTGCAAGGAGGTGGGTGCGGCCAGT
TCAGTGCTGTCCCCTTAAACCTCATTGGCTTGAAAGCAGGAAGGTGTGCTGACTATGTGGTGACAGGAGCTTGGT
CAGCTAAGGCCGCAGAAGAAGCCAAGAAGTTTGGGACTATAAATATCGTTCACCCTAAACTTGGGAGTTATACAA
AAATTCCAGATCCAAGCACCTGGAACCTCAACCCAGATGCCTCCTACGTGTATTATTGCGCAAATGAGACGGTGC
ATGGTGTGGAGTTTGACTTTATACCCGATGTCAAGGGAGCAGTACTGGTTTGTGACATGTCCTCAAACTTCCTGT
CCAAGCCAGTGGATGTTTCCAAGTTTGGTGTGATTTTTGCTGGTGCCCAGAAGAATGTTGGCTCTGCTGGGGTCA
CCGTGGTGATTGTCCGTGATGACCTGCTGGGGTTTGCCCTCCGAGAGTGCCCCTCGGTCCTGGAATACAAGGTGC
AGGCTGGAAACAGCTCCTTGTACAACACGCCTCCATGTTTCAGCATCTACGTCATGGGCTTGGTTCTGGAGTGGA
TTAAAAACAATGGAGGTGCCGCGGCCATGGAGAAGCTTAGCTCCATCAAATCTCAAACAATTTATGAGATTATTG
ATAATTCTCAAGGATTCTACGTTTGTCCAGTGGAGCCCCAAAATAGAAGCAAGATGAATATTCCATTCCGCATTG
GCAATGCCAAAGGAGATGATGCTTTAGAAAAAAGATTTCTTGATAAAGCTCTTGAACTCAATATGTTGTCCTTGA
AAGGGCATAGGTCTGTGGGAGGCATCCGGGCCTCTCTGTATAATGCTGTCACAATTGAAGACGTTCAGAAGCTGG
CCGCCTTCATGAAAAAATTTTTGGAGATGCATCAGCTA**TGA**ACACATCCTAACCAGGATATACTCTGTTCTTGAA
CAACATACAAAGTTTAAAGTAACTTGGGGATGGCTACAAAAAGTTAACACAGTATTTTTCTCAAATGAACATGTT
TATTGCAGATTCTTCTTTTTTGAAAGAACAACAGCAAAACATCCACAACTCTGTAAAGCTGGTGGGACCTAATGT
CACCTTAATTCTGACTTGAACTGGAAGCATTTTAAGAAATCTTGTTGCTTTTCTAACAAATTCCCGCGTATTTTG
CCTTTGCTGCTACTTTTTCTAGTTAGATTTCAAACTTGCCTGTGGACTTAATAATGCAAGTTGCGATTAATTATT
TCTGGAGTCATGGGAACACACAGCACAGAGGGTAGGGGGGCCCTCTAGGTGCTGAATCTACACATCTGTGGGGTC
TCCTGGGTTCAGTGGCTGTTGATTCAAGGTCAACATTGACCATTGGAGGAGTGGTTTAAGAGTGCCAGGCGAAGG
GCAAACTGTAGATCGATCTTTATGCTGTTATTACAGGAGAAGTGACATACTTTATATATGTTTATATTAGCAAGG
TCTGTTTTTAATACCATATACTTTATATTTCTATACATTTATATTTCTAATAATACAGTTATCACTGATATATGT
AGACACTTTTAGAATTTATTAAATCCTTGACCTTGTGCATTATAGCATTCCATTAGCAAGAGTTGTACCCCCTCC
CCAGTCTTCGCCTTCCTCTTTTTAAGCTGTTTTATGAAAAAGACCTAGAAGTTCTTGATTCATTTTTACCATTCT
TTCCATAGGTAGAAGAGAAAGTTGATTGGTTGGTTGTTTTTCAATTATGCCATTAAACTAAACATTTCTGTTAAA
TTACCCTATCCTTTGTTCTCTACTGTTTTCTTTGTAATGTATGACTACGAGAGTGATACTTTGCTGAAAAGTCTT
TCCCCTATTGTTTATCTATTGTCAGTATTTTATGTTGAATATGTAAAGAACATTAAAGTCCTAAACACGGTTCTA
AGCTAAGTGAAGGGGAAGATCTGAGAGCGTGCTGTTTGTGGCTGTTGATGCATATTCGTGATGTAACAGGTCCTG
GGGCCTCACTTTACCCCATTTGTAAAATGGGGCTAATGTCACCTGCCTCTTACCTACCTCAGAGGGATTTGGTGA
AGCAAACTGTTAATCTTCGAAAACGACCATTTCACTTCTTGGATATCAAGTGCTAACCCAGTATGTTCTTCTTTT
TTATGTAAGGGACAGCTTTCTCCACAGAGTCCTTTCTGCTGGTGAGGACAGCATTTCTGAGCAGGGCTTTGTTCT
CTATGTGCATTAGGACTTTTATCATGCCCTTGTTCTGTGTGTAGTTACTTGACAGCATCAAATGCCGCCTCTTCC
TAATGTCCTTCAAGTTTTCATGAACTAGCAACCCCACCTTCCACCATGGTTCTGGGCGCCTGATTTGCTGTGAC
TCCCAGACCCAGCCACTGTTTCTGCCACCCTGTAACAGGCCATTAAAGCTCCCCAGTGTTCAGCCTCCTTCACTC
CCTTGTTTTCCCTGTTGCTATGTGTCACCTGGGCCCTACAGACAGGGGCACACGCTTATGGATGTGTGTACCATT
GAGATGAGAATGGGTAGATGGAACGGAGACCATCAAGCCACACCCCCTTCTTAAAACTGGGGACATGAGCCTGAG
CAGAAAGGGTGAAGAAGAGCCATGGGACACAGAGTTGACCCAGCCAGGGGGAAAGCCCAGCTCTCTTTAAACCAG
CTAAGCCATTCCAGTCTCCTGTGAAGCCAAAAGGGACCAGGAACCGTGCAAAGGAAACTGGAAACTTTTCCCCGC
TGGGTAGAGCATGTTGCTGATACTCTTCTGTTTTCAAGGGAAACAATCACATTGTTTGATTCCAAATGGTAAATG
AACACTCACTATTCTTCAGGCTTCAGTAAATCTTTTTTTCTTCCTTCATATATATATACACAACACACACACACA
TATGTATATCTATACACACATGTGTGTTGTGTATATGCATGTGTGTGTGTGCGTGTGTGTATAGTTTTAGCTCCA
AGCCAAGCAAGTTTGTGTTTGGATAGAGGGGAACTTAACTATTAACTACAAGTTGTATGTCTGTGGTATCTTGAT
TTTCCCATTTCTAAAGATGAATTTCACAAAGCCATAAAGCGTGAAATTAGAGCTGGACTTAAGACTCATTGGCCG
ACCATCCTGTGTCCTGGCCTGGCCCTGCAGTAAGAAGCGTGTCTGGGTCTGGAGAAGGGTGCTTCCGAGAGTGTG
CAGGTGGCCCTTCCCCTTGGAGGCGAGAAGAGAGAATGTGCTGTCTATCTTCCTGGTTTTCAGTCCACAGAGTCG
GTAGACCAGGGGTTACGTGACTGGGGAAAATCTCACATCTCCTTGTCTGAAAACATTTCCCCTGCTGTTCTCTTT

FIGURE 660B

CTAACATGTTGTGGTAAATCTGTTCAGATACTGCTCATCTGACTGTTTTGTACATGTGACAATTGCCTTAAAACC
TAGCACAGTCCTCAGAAATGAATACCGTGTTTCCACTGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 661

MDAPRQVVNFGPGPAKLPHSVLLEIQKELLDYKGVGISVLEMSHRSSDFAKIINNTENLVRELLAVPDNYKVIFL
QGGGCGQFSAVPLNLIGLKAGRCADYVVTGAWSAKAAEEAKKFGTINIVHPKLGSYTKIPDPSTWNLNPDASYVY
YCANETVHGVEFDFIPDVKGAVLVCDMSSNFLSKPVDVSKFGVIFAGAQKNVGSAGVTVVIVRDDLLGFALRECP
SVLEYKVQAGNSSLYNTPPCFSIYVMGLVLEWIKNNGGAAAMEKLSSIKSQTIYEIIDNSQGFYVCPVEPQNRSK
MNIPFRIGNAKGDDALEKRFLDKALELNMLSLKGHRSVGGIRASLYNAVTIEDVQKLAAFMKKFLEMHQL

FIGURE 662

ACTTTCCTGCCCCTTCCCCGGCCAAGCCCAACTCCGGATCTCGCTCTCCACCGGATCTCACCCGCCACACCCGGA
CAGGCGGCTGGAGGAGGCGGGCGTCTAAAATTCTGGGAAGCAGAACCTGGCCGGAGCCACTAGACAGAGCCGGGC
CTAGCCCAGAGAC**ATG**GAGAGTTGCTACAACCCAGGTCTGGATGGTATTATTGAATATGATGATTTCAAATTGAA
CTCCTCCATTGTGGAACCCAAGGAGCCAGCCCCAGAAACAGCTGATGGCCCCTACCTGGTGATCGTGGAACAGCC
TAAGCAGAGAGGCTTCCGATTTCGATATGGCTGTGAAGGCCCCTCCCATGGAGGACTGCCCGGTGCCTCCAGTGA
GAAGGGCCGAAAGACCTATCCCACTGTCAAGATCTGTAACTACGAGGGACCAGCCAAGATCGAGGTGGACCTGGT
AACACACAGTGACCCACCTCGTGCTCATGCCCACAGTCTGGTGGGCAAGCAATGCTCGGAGCTGGGGATCTGCGC
CGTTTCTGTGGGGCCCAAGGACATGACTGCCCAATTTAACAACCTGGGTGTCCTGCATGTGACTAAGAAGAACAT
GATGGGGACTATGATACAAAAACTTCAGAGGCAGCGGCTCCGCTCTAGGCCCCAGGGCCTTACGGAGGCCGAGCA
GCGGGAGCTGGAGCAAGAGGCCAAAGAACTGAAGAAGGTGATGGATCTGAGTATAGTGCGGCTGCGCTTCTCTGC
CTTCCTTAGAGCCAGTGATGGCTCCTTCTCCCTGCCCCTGAAGCCAGTCACCTCCCAGCCCATCCATGATAGCAA
ATCTCCGGGGGCATCAAACCTGAAGATTTCTCGAATGGACAAGACAGCAGGCTCTGTGCGGGGTGGAGATGAAGT
TTATCTGCTTTGTGACAAGGTGCAGAAAGATGACATTGAGGTTCGGTTCTATGAGGATGATGAGAATGGATGGCA
GGCCTTTGGGGACTTCTCTCCCACAGATGTGCATAAACAGTATGCCATTGTGTTCCGGACACCCCCCTATCACAA
GATGAAGATTGAGCGGCCTGTAACAGTGTTTCTGCAACTGAAACGCAAGCGAGGAGGGGACGTGTCTGATTCCAA
ACAGTTCACCTATTACCCTCTGGTGGAAGACAAGGAAGAGGTGCAGCGGAAGCGGAGGAAGGCCTTGCCCACCTT
CTCCCAGCCCTTCGGGGGTGGCTCCCACATGGGTGGAGGCTCTGGGGGTGCAGCCGGGGGCTACGGAGGAGCTGG
AGGAGGTGGCAGCCTCGGTTTCTTCCCCTCCTCCCTGGCCTACAGCCCCTACCAGTCCGGCGCGGGCCCCATGCG
GTGCTACCCGGGAGGCGGGGGCGGGGCGCAGATGGCCGCCACGGTGCCCAGCAGGGACTCCGGGGAGGAAGCCGC
GGAGCCGAGCGCCCCCTCCAGGACCCCCCAGTGCGAGCCGCAGGCCCCGGAGATGCTGCAGCGAGCTCGAGAGTA
CAACGCGCGCCTGTTCGGCCTGGCGCACGCAGCCCCGAGCCCTACTCGACTACTGCGTCACCGCGGACGCCGCGC
GCTGCTGGCGGGACAGCGCCACCTGCTGACGGCGCAGGACGAGAACGGAGACACACCACTGCACCTAGCCATCAT
CCACGGGCAGACCAGTGTCATTGAGCAGATAGTCTATGTCATCCACCACGCCCAGGACCTCGGCGTTGTCAACCT
CACCAACCACCTGCACCAGACGCCCCTGCACCTGGCGGTGATCACGGGGCAGACGAGTGTGGTGAGCTTTCTGCT
GCGGGTAGGTGCAGACCCAGCTCTGCTGGATCGGCATGGAGACTCAGCCATGCATCTGGCGCTGCGGGCAGGCGC
TGGTGCTCCTGAGCTGCTGCGTGCACTGCTTCAGAGTGGAGCTCCTGCTGTGCCCCAGCTGTTGCATATGCCTGA
CTTTGAGGGACTGTATCCAGTACACCTGGCGGTCCGAGCCCGAAGCCCTGAGTGCCTGGATCTGCTGGTGGACAG
TGGGGCTGAAGTGGAGGCCACAGAGCGGCAGGGGGGACGAACAGCCTTGCATCTAGCCACAGAGATGGAGGAGCT
GGGGTTGGTCACCCATCTGGTCACCAAGCTCCGGGCCAACGTGAACGCTCGCACCTTTGCGGGAAACACACCCCT
GCACCTGGCAGCTGGACTGGGGTACCCGACCCTCACCCGCCTCCTTCTGAAGGCTGGTGCTGACATCCATGCTGA
AAACGAGGAGCCCCTGTGCCCACTGCCTTCACCCCCTACCTCTGATAGCGACTCGGACTCTGAAGGGCCTGAGAA
GGACACCCGAAGCAGCTTCCGGGGCCACACGCCTCTTGACCTCACTTGCAGCACCTTGGTGAAGACCTTGCTGCT
AAATGCTGCTCAGAACACCATGGAGCCACCCCTGACCCCGCCCAGCCCAGCAGGGCCGGGACTGTCACTTGGTGA
TACAGCTCTGCAGAACCTGGAGCAGCTGCTAGACGGGCCAGAAGCCCAGGGCAGCTGGGCAGAGCTGGCAGAGCG
TCTGGGGCTGCGCAGCCTGGTAGACACGTACCGACAGACAACCTCACCCAGTGGCAGCCTCCTGCGCAGCTACGA
GCTGGCTGGCGGGGACCTGGCAGGTCTACTGGAGGCCCTGTCTGACATGGGCCTAGAGGAGGGAGTGAGGCTGCT
GAGGGGTCCAGAAACCCGAGACAAGCTGCCCAGCACAGAGGTGAAGGAAGACAGTGCGTACGGGAGCCAGTCAGT
GGAGCAGGAGGCAGAGAAGCTGGGCCCACCCCCTGAGCCACCAGGAGGGCTCTCGCACGGGCACCCCCAGCCTCA
GGTGACTGACCTGCTGCCTGCCCCCAGCCCCCTTCCCGGACCCCCTGTACAGCGTCCCCACCTATTTCAAATCTT
ATTTAACACCCCACACCCACCCCTCAGTTGGGACAAA**TAA**AGGATTCTCATGGGAAGGGGAGGACCCCGAATTCC
T

FIGURE 663

MESCYNPGLDGIIEYDDFKLNSSIVEPKEPAPETADGPYLVIVEQPKQRGFRFRYGCEGPSHGGLPGASSEKGRK
TYPTVKICNYEGPAKIEVDLVTHSDPPRAHAHSLVGKQCSELGICAVSVGPKDMTAQFNNLGVLHVTKKNMMGTM
IQKLQRQRLRSRPQGLTEAEQRELEQEAKELKKVMDLSIVRLRFSAFLRASDGSFSLPLKPVTSQPIHDSKSPGA
SNLKISRMDKTAGSVRGGDEVYLLCDKVQKDDIEVRFYEDDENGWQAFGDFSPTDVHKQYAIVFRTPPYHKMKIE
RPVTVFLQLKRKRGGDVSDSKQFTYYPLVEDKEEVQRKRRKALPTFSQPFGGGSHMGGGSGGAAGGYGGAGGGGS
LGFFPSSLAYSPYQSGAGPMRCYPGGGGGAQMAATVPSRDSGEEAAEPSAPSRTPQCEPQAPEMLQRAREYNARL
FGLAHAAPSPTRLLRHRGRRALLAGQRHLLTAQDENGDTPLHLAIIHGQTSVIEQIVYVIHHAQDLGVVNLTNHL
HQTPLHLAVITGQTSVVSFLLRVGADPALLDRHGDSAMHLALRAGAGAPELLRALLQSGAPAVPQLLHMPDFEGL
YPVHLAVRARSPECLDLLVDSGAEVEATERQGGRTALHLATEMEELGLVTHLVTKLRANVNARTFAGNTPLHLAA
GLGYPTLTRLLLKAGADIHAENEEPLCPLPSPPTSDSDSDSEGPEKDTRSSFRGHTPLDLTCSTLVKTLLLNAAQ
NTMEPPLTPPSPAGPGLSLGDTALQNLEQLLDGPEAQGSWAELAERLGLRSLVDTYRQTTSPSGSLLRSYELAGG
DLAGLLEALSDMGLEEGVRLLRGPETRDKLPSTEVKEDSAYGSQSVEQEAEKLGPPPEPPGGLSHGHPQPQVTDL
LPAPSPLPGPPVQRPHLFQILFNTPHPPLSWDK

FIGURE 664

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TTCTAGTTTGCGGTTCAGGTTTGCCGCTGCCGGCCAGCGTCCTCTGGCCATGGACACCCCGGAAAATGTCCTTCA
GATGCTTGAAGCCCACATGCAGAGCTACAAGGGCAATGACCCTCTTGGTGAATGGGAAAGATACATACAGTGGGT
AGAAGAGAATTTTCCTGAGAATAAAGAATACTTGATAACTTTACTAGAACATTTAATGAAGGAATTTTTAGATAA
GAAGAAATACCACAATGACCCAAGATTCATCAGTTATTGTTTAAAATTTGCTGAGTACAACAGTGACCTCCATCA
ATTTTTTGAGTTTCTGTACAACCATGGGATTGGAACCCTGTCATCCCCTCTGTACATTGCCTGGGCGGGGCATCT
GGAAGCCCAAGGAGAGCTGCAGCATGCCAGTGCTGTCCTTCAGAGAGGAATTCAAAACCAGGCTGAACCCAGAGA
GTTCCTGCAACAACAATACAGGTTATTTCAGACACGCCTCACTGAAACCCATTTGCCAGCTCAAGCTAGAACCTC
AGAACCTCTGCATAATGTTCAGGTTTTAAATCAAATGATAACATCAAAATCAAATCCAGGAAATAACATGGCCTG
CATTTCTAAGAATCAGGGTTCAGAGCTTTCTGGAGTGATATCTTCAGCTTGTGATAAAGAGTCAAATATGGAACG
AAGAGTGATCACGATTTCTAAATCAGAATATTCTGTGCACTCATCTTTGGCATCCAAAGTTGATGTTGAGCAGGT
TGTTATGTATTGCAAGGAGAAGCTTATTCGTGGGGAATCAGAATTTTCCTTTGAAGAATTGAGAGCCCAGAAATA
CAATCAACGGAGAAAGCATGAGCAATGGGTAAATGAAGACAGACATTATATGAAAAGGAAAGAAGCAAATGCTTT
TGAAGAACAGCTATTAAAAACAGAAAATGGATGAACTTCATAAGAAGTTGCATCAGGTGGTGGAGACATCCCATGA
GGATCTGCCCGCTTCCCAGGAAAGGTCCGAGGTTAATCCAGCACGTATGGGGCCAAGTGTAGGCTCCCAGCAGGA
ACTGAGAGCGCCATGTCTTCCAGTAACCTATCAGCAGACACCAGTGAACATGGAAAAGAACCCAAGAGAGGCACC
TCCTGTTGTTCCTCCTTTGGCAAATGCTATTTCTGCAGCTTTGGTGTCCCCAGCCACCAGCCAGAGCATTGCTCC
TCCTGTTCCTTTGAAAGCCCAGACAGTAACAGACTCCATGTTTGCAGTGGCCAGCAAAGATGCTGGATGTGTGAA
TAAGAGTACTCATGAATTCAAGCCACAGAGTGGAGCAGAGATCAAAGAAGGGTGTGAAACACATAAGGTTGCCAA
CACAAGTTCTTTTCACACAACTCCAAACACATCACTGGGAATGGTTCAGGCAACGCCATCCAAAGTGCAGCCATC
ACCCACCGTGCACACAAAAGAAGCATTAGGTTTCATCATGAATATGTTTCAGGCTCCTACACTTCCTGATATTTC
TGATGACAAAGATGAATGGCAATCTCTAGATCAAAATGAAGATGCATTTGAAGCCCAGTTTCAAAAAAATGTAAG
GTCATCTGGGGCTTGGGGAGTCAATAAGATCATCTCTTCTTTGTCATCTGCTTTTCATGTGTTTGAAGATGGAAA
CAAAGAAAATTATGGATTACCACAGCCTAAAAATAAACCCACAGGAGCCAGGACCTTTGGAGAACGCTCTGTCAG
CAGACTTCCTTCAAAACCAAAGGAGGAAGTGCCTCATGCTGAAGAGTTTTTGGATGACTCAACTGTATGGGGTAT
TCGCTGCAACAAAACCCTGGCACCCAGTCCTAAGAGCCCAGGAGACTTCACATCTGCTGCACAACTTGCGTCTAC
ACCATTCCACAAGCTTCCAGTGGAGTCAGTGCACATTTTAGAAGATAAAGAAAATGTGGTAGCAAAACAGTGTAC
CCAGGCGACTTTGGATTCTTGTGAGGAAAACATGGTGGTGCCTTCAAGGGATGGAAAATTCAGTCCAATTCAAGA
GAAAAGCCCAAAACAGGCCTTGTCGTCTCACATGTATTCAGCATCCTTACTTCGTCTGAGCCAGCCTGCTGCAGG
TGGGGTACTTACCTGTGAGGCAGAGTTGGGCGTTGAGGCTTGCAGACTCACAGACACTGACGCTGCCATTGCAGA
AGATCCACCAGATGCTATTGCTGGGCTCCAAGCAGAATGGATGCAGATGAGTTCACTTGGGACTGTTGATGCTCC
AAACTTCATTGTTGGGAACCCATGGGATGATAAGCTGATTTTCAAACTTTTATCTGGGCTTTCTAAACCAGTGAG
TTCCTATCCAAATACTTTTGAATGGCAATGTAAACTTCCAGCCATCAAGCCCAAGACTGAATTTCAATTGGGTTC
TAAGCTGGTCTATGTCCATCACCTTCTTGGAGAAGGAGCCTTTGCCCAGGTGTACGAAGCTACCCAGGGAGATCT
GAATGATGCTAAAAATAAACAGAAATTTGTTTTAAAGGTCCAAAAGCCTGCCAACCCCTGGGAATTCTACATTGG
GACCCAGTTGATGGAAAGACTAAAGCCATCTATGCAGCACATGTTTATGAAGTTCTATTCTGCCCACTTATTCCA
GAATGGCAGTGTATTAGTAGGAGAGCTCTACAGCTATGGAACATTATTAAATGCCATTAACCTCTATAAAAATAC
CCCTGAAAAAGTGATGCCTCAAGGTCTTGTCATCTCTTTGCTATGAGAATGCTTTACATGATTGAGCAAGTGCA
TGACTGTGAAATCATTCATGGAGACATTAAACCAGACAATTTCATACTTGGAAACGGATTTTTGGAACAGGATGA
TGAAGATGATTTATCTGCTGGCTTGGCACTGATTGACCTGGGTCAGAGTATAGATATGAAACTTTTTCCAAAAGG
AACTATATTCACAGCAAAGTGTGAAACATCTGGTTTTCAGTGTGTTGAGATGCTCAGCAACAAACCATGGAACTA
CCAGATCGATTACTTTGGGGTTGCTGCAACAGTATATTGCATGCTCTTTGGCACTTACATGAAAGTGAAAAATGA
AGGAGGAGAGTGTAAGCCTGAAGGTCTTTTTAGAAGGCTTCCTCATTTGGATATGTGGAATGAATTTTTTCATGT
TATGTTGAATATTCCAGATTGTCATCATCTTCCATCTTTGGATTTGTTAAGGCAAAAGCTGAAGAAAGTATTTCA
ACAACACTATACTAACAAGATTAGGGCCCTACGTAATAGGCTAATTGTACTGCTCTTAGAATGTAAGCGTTCACG
AAAATAAAATTTGGATATAGACAGTCCTTAAAAATCACACTGTAAATATGAATCTGCTCACTTTAAACCTGTTTT
TTTTTCATTTATTGTTTATGTAAATGTTTGTTAAAAATAAATCCCATGGAATATTTCCATGTAAAAAAAAA
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FIGURE 665

MDTPENVLQMLEAHMQSYKGNDPLGEWERYIQWVEENFPENKEYLITLLEHLMKEFLDKKKYHNDPRFISYCLKF
AEYNSDLHQFFEFLYNHGIGTLSSPLYIAWAGHLEAQGELQHASAVLQRGIQNQAEPREFLQQQYRLFQTRLTET
HLPAQARTSEPLHNVQVLNQMITSKSNPGNNMACISKNQGSELSGVISSACDKESNMERRVITISKSEYSVHSSL
ASKVDVEQVVMYCKEKLIRGESEFSFEELRAQKYNQRRKHEQWVNEDRHYMKRKEANAFEEQLLKQKMDELHKKL
HQVVETSHEDLPASQERSEVNPARMGPSVGSQQELRAPCLPVTYQQTPVNMEKNPREAPPVVPPLANAISAALVS
PATSQSIAPPVPLKAQTVTDSMFAVASKDAGCVNKSTHEFKPQSGAEIKEGCETHKVANTSSFHTTPNTSLGMVQ
ATPSKVQPSPTVHTKEALGFIMNMFQAPTLPDISDDKDEWQSLDQNEDAFEAQFQKNVRSSGAWGVNKIISSLSS
AFHVFEDGNKENYGLPQPKNKPTGARTFGERSVSRLPSKPKEEVPHAEEFLDDSTVWGIRCNKTLAPSPKSPGDF
TSAAQLASTPFHKLPVESVHILEDKENVVAKQCTQATLDSCEENMVVPSRDGKFSPIQEKSPKQALSSHMYSASL
LRLSQPAAGGVLTCEAELGVEACRLTDTDAAIAEDPPDAIAGLQAEWMQMSSLGTVDAPNFIVGNPWDDKLIFKL
LSGLSKPVSSYPNTFEWQCKLPAIKPKTEFQLGSKLVYVHHLLGEGAFAQVYEATQGDLNDAKNKQKFVLKVQKP
ANPWEFYIGTQLMERLKPSMQHMFMKFYSAHLFQNGSVLVGELYSYGTLLNAINLYKNTPEKVMPQGLVISFAMR
MLYMIEQVHDCEIIHGDIKPDNFILGNGFLEQDDEDDLSAGLALIDLGQSIDMKLFPKGTIFTAKCETSGFQCVE
MLSNKPWNYQIDYFGVAATVYCMLFGTYMKVKNEGGECKPEGLFRRLPHLDMWNEFFHVMLNIPDCHHLPSLDLL
RQKLKKVFQQHYTNKIRALRNRLIVLLLECKRSRK

FIGURE 666

GCGCAGAAGCGGCGGCGGTGGTGGCTTGTGGTGCGGCCTCACCATACAGGAACAGGGCAGACGTTAGCGTGAGTG
ATCACTCTCAATCCCGGGGACCTGGTGGCCTTAGTCTTTCAGGTGGAACGGTGTGCGAC**ATG**GGAAAGAAAACCA
AGCGGACAGCTGACAGTTCTTCTTCAGAGGATGAGGAGGAGTATGTTGTGGAGAAGGTGCTAGACAGGCGCGTGG
TTAAGGGACAAGTGGAATATCTACTGAAGTGGAAAGGCTTTTCTGAGGAGCACAATACTTGGGAACCTGAGAAAA
ACTTGGATTGCCCTGAGCTAATTTCTGAATTTATGAAAAAGTATAAGAAGATGAAGGAGGGTGAAAATAATAAAC
CCAGGGAGAAGTCAGAAAGTAACAAGAGGAAATCCAATTTCTCAAACAGTGCCGATGACATCAAATCTAAAAAAA
AGAGAGAGCAGAGCAATGATATCGCTCGGGGCTTTGAGAGAGGACTGGAACCAGAAAAGATCATTGGGGCAACAG
ATTCCTGTGGTGATTTAATGTTCCTAATGAAATGGAAAGACACAGATGAAGCTGACCTGGTTCTTGCAAAAGAAG
CTAATGTGAAATGTCCACAAATTGTGATAGCATTTTATGAAGAGAGACTGACATGGCATGCATATCCTGAGGATG
CGGAAAACAAAGAGAAAGAAACAGCAAAGAGC**TAA**GGAGGGGATGGTCTCTGTCATTTCTCTTTGTACATAATA
CATTCACCTCCCTGCCTCCTCTCCTTTCTACCCACCCCTTTCTATCCTAAACACATCCATAAAAAATGTGCTTAT
CACTGTGCTCCACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 667

MGKKTKRTADSSSSEDEEEYVVEKVLDRRVVKGQVEYLLKWKGFSEEHNTWEPEKNLDCPELISEFMKKYKKMKE
GENNKPREKSESNKRKSNFSNSADDIKSKKKREQSNDIARGFERGLEPEKIIGATDSCGDLMFLMKWKDTDEADL
VLAKEANVKCPQIVIAFYEERLTWHAYPEDAENKEKETAKS

FIGURE 668

CTGAAGCTTGCATGCCTGCAGGTCGACCCACGCGTCCGCGGACGCGTGGGCGGACGCGTGGGTTTTTCCTTTCTT
CCAGAAGGAGATTTAACCATAGTAGAAAGAATGGAGAACTATTAACTGCCTTCCTTCTGTGGGCTGTGATTTTCA
GAGGGGAATGCTAAGAGGTGATTTTCAATGTTGGGACTCAAAGGTGAAGACACTGAAGGACAGAATTTTTGGCAG
AGGAAAGATCTTCTTCGGTCACCATACTTGAGTTAGCTCTAGGGAAGTGGAGGTTTCCATTTGGAATTCTATAGC
TTCTTCCAGGTCATAGTGTCTGCCCCCCACCTTCCAGTATCTCCTGATATGCAGCATGA**ATG**AAAATGGCAAGTT
TCCTGGCCTTCCTTCTGCTCAACTTTCGTGTCTGCCTCCTTTTGCTTCAGCTGCTCATGCCTCACTCAGCTCAGT
TTTCTGTGCTTGGACCCTCTGGGCCCATCCTGGCCATGGTGGGTGAAGACGCTGATCTGCCCTGTCACCTGTTCC
CGACCATGAGTGCAGAGACCATGGAGCTGAAGTGGGTGAGTTCCAGCCTAAGGCAGGTGGTGAACGTGTATGCAG
ATGGAAAGGAAGTGGAAGACAGGCAGAGTGCACCGTATCGAGGGAGAACTTCGATTCTGCGGGATGGCATCACTG
CAGGGAAGGCTGCTCTCCGAATACACAACGTCACAGCCTCTGACAGTGGAAAGTACTTGTGTTATTCCAAGATG
GTGACTTCTATGAAAAAGCCCTGGTGGAGCTGAAGGTTGCAGCACTGGGTTCTGATCTTCACGTTGATGTGAAGG
GTTACAAGGATGGAGGGATCCATCTGGAGTGCAGGTCCACTGGCTGGTACCCCCAACCCCAAATACAGTGGAGCA
ACAACAAGGGAGAGAACATCCCGACTGTGGAAGCACCTGTGGTTGCAGACGGAGTGGGCCTGTATGCAGTAGCAG
CATCTGTGATCATGAGAGGCAGCTCTGGGGAGGGTGTATCCTGTACCATCAGAAGTTCCCTCCTCGGCCTGGAAA
AGACAGCCAGCATTTCCATCGCAGACCCCTTCTTCAGGAGCGCCCAGAGGTGGATCGCCGCCCTGGCACGGACCC
TGCCTGTCTTGCTGCTGCTTCTTGGGGGAGCCGGTTACTTCCTGTGGCAACAGCAGGAGGAAAAAAAGACTCAGT
TCAGAAAGAAAAAGAGAGAGCAAGAGTTGAGAGAAATGGCATGGAGCACAATGAAGCAAGAACAAAGCACAAGAG
TGAAGCTCCTGGAGGAACTCAGATGGAGAAGTATCCAGTATGCATCTCGGGGAGAGAGACATTCAGCCTATAATG
AATGGAAAAAGGCCCTCTTCAAGCCTGCGGATGTGATTCTGGATCCAAAAACAGCAAACCCCATCCTCCTTGTTT
CTGAGGACCAGAGGAGTGTGCAGCGTGCCAAGGAGCCCCAGGATCTGCCAGACAACCCTGAGAGATTTAATTGGC
ATTATTGTGTTCTCGGCTGTGAGAGCTTCATATCAGGGAGACATTACTGGGAGGTGGAGGTAGGGACAGGAAAG
AGTGGCATATAGGGGTGTGCAGTAAGAATGTGCAGAGAAAAGGCTGGGTCAAAATGACACCTGAGAATGGATTCT
GGACTATGGGGCTGACTGATGGGAATAAGTATCGGACTCTAACTGAGCCCAGAACCAACCTGAAACTTCCTAAGC
CCCCTAAGAAAGTGGGGGTCTTCCTGGACTATGAGACTGGAGATATCTCATTCTACAATGCTGTGGATGGATCGC
ATATTCATACTTTCCTGGACGTCTCCTTCTCTGAGGCTCTATATCCTGTTTTCAGAATTTTGACCTTGGAGCCCA
CGGCCCTGAGTATTTGTCCAGCG**TGA**AAAGAAGAAGAGAGTTCCTCCAATTCTGACCGAGTGCTGATCATTCCCT
AGAGACACCAGTAACCCCGGGCTTAGCTAACGAAAGTGGGGAGCCTCAGGCTGAAGTAACTTTTCTCTGCTTCTC
CCTGCCCAGCTCAGAGCTGAGGGCCTCCCCCTCCACAGCAACCAATCACAACCATAAAGCTACAAGCACGCACTG
AAGCACTTTACTGATACTCATTCAATTATTCATATGACAGTTGTTTGAGTTTGGTACCATCTTATTTTCCCCTTA
TACAGATAAGGAAACTGGGGTGCAGAAAAGTGAATTGACTACAAAGTAGACATGACTAGTTAACAACACAGCTGG
GATCTAAACAGCAATAACTAACATTAATGGAGAACTTAAAATGCTCTGAGTGCTGTGTTATGAGCTTTGGTGGAT
GTCACTCCTTTAATCCTCGCAACACCCTGTCGGGTAGTCTCATTTAGCAAGTATGGAAGTTGAGGCAGGGCAACA
TTAAGCAACTTACATAACTCATGCAGTAATTTCTGCAGTTGGGAGATGTTCAGCTTCAGTCCCCGGCCCTATGGC
CGTTCTTTTCCACCCTGTTTCTTCCCCCATAGGAAGAACCCACCTGTAGCCCTGAGGTTCTTTTCCCAGGATGGC
TCCAGGATAAGGATCACTGTAGGTGGTTGTGGAGTTGACACCCCTGTTGACTCCTTCCCAGCTGATTGTCAGAGC
CTTAGACCCAGCACGCCTTGGATTAGCTTTGCAGAGTGTCTTGGTTGAGAGAATAACCTCACCGTACCCACATGA
CACGTGATTTGGAAAGAGACTAGAGGCCACACTTGATAAATCATGGGGAACAGATGTGTTCCACCCAACAAATGT
GATAAGTGATCATGCAGCCAGAGCCAGCCTTCCTTCAATCAAGGTTTCCAGGCAGAGCAAATACCCTAGAGATTT
TCTGTGATATAGGAAATTTGGATGAAGGGAGCTAGAAGAAATACAGGGATTTTTTTTTTTTTAAGATGGAGTC
TTACTCTGTTGCTAGGCTGGAGTGCAGTGGTGCGATCTCAGCTCCCTGCAACCTCCACCTCCTGGGTTCAAACAA
TTCTCCTGCCTCAGCCTCCCGAGTACTGGGAATATAGGTGCACGCCACCACACCCAACAAATTTTTGTACTTTTA
GTACAGATGAGGGTTCACTATGTTGGCCAGGATGGTCTCGATCTCTTGACCTCATGATCCACCCACCTCGGTCTC
CCAAAGTGCTGGGATTACAGGCTTGAGCCACCGGGTGACCGGCTTACAGGGATATTTTAATCCCGTTATGGACT
CTGTCTCCAGGAGAGGGGTCTATCCACCCCTGCTCATTGGTGGATGTTAAACCAATATTCCTTTCAACTGCTGCC
TGCTAGGGAAAAACTACTCCTCATTATCATCATTATTATTGCTCTCCACTGTATCCCCTCTACCTGGCATGTGCT
TGTCAAGTTCTAGTTGTTCAATAAATTTGTTAATAATGCTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AA

FIGURE 669

MKMASFLAFLLLNFRVCLLLLQLLMPHSAQFSVLGPSGPILAMVGEDADLPCHLFPTMSAETMELKWVSSSLRQV
VNVYADGKEVEDRQSAPYRGRTSILRDGITAGKAALRIHNVTASDSGKYLCYFQDGDFYEKALVELKVAALGSDL
HVDVKGYKDGGIHLECRSTGWYPQPQIQWSNNKGENIPTVEAPVVADGVGLYAVAASVIMRGSSGEGVSCTIRSS
LLGLEKTASISIADPFFRSAQRWIAALARTLPVLLLLLGGAGYFLWQQQEEKKTQFRKKKREQELREMAWSTMKQ
EQSTRVKLLEELRWRSIQYASRGERHSAYNEWKKALFKPADVILDPKTANPILLVSEDQRSVQRAKEPQDLPDNP
ERFNWHYCVLGCESFISGRHYWEVEVGDRKEWHIGVCSKNVQRKGWVKMTPENGFWTMGLTDGNKYRTLTEPRTN
LKLPKPPKKVGVFLDYETGDISFYNAVDGSHIHTFLDVSFSEALYPVFRILTLEPTALSICPA

FIGURE 670

CAAATCCGTGCTCCTAGATTTGCAGGTTCTGATACTGTGGTTCGAGCTACACTCGCCGCCTGGGCAGACACTCGT
CCAAACCACTGGAGTGTGCTGGTGATCGCAGCCAGCCCTTCGCCTCTCCATGAACCCGTGAGCCTGGGGCAGGTG
CCAGGCG**ATG**GCGCGGCCTGTGAGCGACAGGACCCCGGCCCCTCTGCTGCTGGGCGGCCCGGCCGGGACACCCCC
TGGCGGGGGAGCGCTGCTTGGGTTGCGGAGCCTTCTGCAGGGGACCAGCAAGCCCAAAGAGCCGGCCAGCTGTCT
CCTGAAGGAAAAGGAGCGCAAGGCGGCCCTGCCTGCAGCCACAACCCCTGGGCCAGGCCTGGAGACTGCGGGCCC
GGCGGATGCCCCGGCTGGGGCAGTGGTGGGCGGAGGGTCCCCGCGGGGGCGCCCGGGGCCGGTGCCCGCCCCGGG
TCTGTTGGCGCCACTGCTGTGGGAGCGCACGCTGCCGTTCGGCGATGTGGAGTACGTAGACCTGGACGCCTTCCT
GCTGGAGCACGGGCTCCCGCCCAGCCCGCCGCCCCCGGTGGCCCGTCGCCGGAGCCGTCGCCCGCGCGGACGCC
CGCACCCTCCCCAGGGCCGGGTTCGTGCGGCTCGGCTTCCCCCCGCTCCTCTCCTGGGCACGCCCCCGCCCGGGC
TGCCCTCGGGACCGCCACGGGCCACCGCGCAGGCCTGACCTCTCGGGACACACCCAGCCCTGTGGACCCAGACAC
CGTGGAGGTGTTGATGACCTTTGAACCCGACCCAGCTGATCTTGCCCTATCAAGCATTCCTGGCCACGAGACCTT
TGACCCTCGAAGACATCGCTTCTCAGAAGAGGAACTTAAGCCCCAGCCAATCATGAAGAAGGCAAGAAAAATCCA
GGTGCCGGAGGAGCAGAAGGATGAGAAATACTGGAGCCGGCGGTACAAGAACAACGAGGCAGCCAAGCGGTCCCG
TGACGCCCGGCGGCTCAAGGAGAACCAGATATCGGTGCGGGCGGCCTTCCTGGAGAAGGAGAACGCCCTGCTGCG
GCAGGAAGTTGTGGCCGTGCGCCAGGAGCTGTCCCACTACCGCGCCGTGCTGTCCCGATACCAGGCCCAGCACGG
GGCCCTG**TGA**GGCTGCCCCACATCCCCACCTGGCAGGCGTCTCCTCCGCTTGCTGAGACTTACGCCCTGTTCCCT
TCCTGCCCTGTGCCCACGGGCCGGCCAGCTGGGTGCCCCAGGGACGTGATAATGCAGATAAATACATTTATATTT
TTAAGAAAAAGCGAGCCTCCCCCCTCTTGCGGGGGCGGGGAGGGTTCTCTGTGTGTCCCCGGCACGTCAGGGACC
CTATCCTCCCACCGCCTCCGTTAACACGATCCTGAATAAATCTTGAGAACCCC

FIGURE 671

MARPVSDRTPAPLLLGGPAGTPPGGGALLGLRSLLQGTSKPKEPASCLLKEKERKAALPAATTPGPGLETAGPAD
APAGAVVGGGSPRGRPGPVPAPGLLAPLLWERTLPFGDVEYVDLDAFLLEHGLPPSPPPPGGPSPEPSPARTPAP
SPGPGSCGSASPRSSPGHAPARAALGTATGHRAGLTSRDTPSPVDPDTVEVLMTFEPDPADLALSSIPGHETFDP
RRHRFSEEELKPQPIMKKARKIQVPEEQKDEKYWSRRYKNNEAAKRSRDARRLKENQISVRAAFLEKENALLRQE
VVAVRQELSHYRAVLSRYQAQHGAL

FIGURE 672

AGACTCAACAAGAGCTCCAGCAAAGACTTTCACTGTAGCTTGACTTGACCTGAGATTAACTAGGGAATCTTGAGA
ATAAAG**ATG**AGCTCTGAAAATTGTTTCGTAGCAGAGAACAGCTCTTTGCATCCGGAGAGTGGACAAGAAAATGAT
GCCACCAGTCCCCATTTCTCAACACGTCATGAAGGGTCCTTCCAAGTTCCTGTCCTGTGTGCTGTAATGAATGTG
GTCTTCATCACCATTTTAATCATAGCTCTCATTGCCTTATCAGTGGGCCAATACAATTGTCCAGGCCAATACACA
TTCTCAATGCCATCAGACAGCCATGTTTCTTCATGCTCTGAGGACTGGGTTGGCTACCAGAGGAAATGCTACTTT
ATTTCTACTGTGAAGAGGAGCTGGACTTCAGCCCAAAATGCTTGTTCTGAACATGGTGCTACTCTTGCTGTCATT
GATTCTGAAAAGGACATGAACTTTCTAAAACGATACGCAGGTAGAGAGGAACACTGGGTTGGACTGAAAAAGGAA
CCTGGTCACCCATGGAAGTGGTCAAATGGCAAAGAATTTAACAACTGGTTCAACGTTACAGGGTCTGACAAGTGT
GTTTTTCTGAAAAACACAGAGGTCAGCAGCATGGAATGTGAGAAGAATTTATACTGGATATGTAACAAACCTTAC
AAA**TAA**TAAGGAAACATGTTCACTTATTGACTATTATAGAATGGAACTCAAGGAAATCTGTGTCAGTGGATGCTG
CTCTGTGGTCCGAAGTCTTCCATAGAGACTTTGTGAAAAAAAATTTTATAGTGTCTTGGGAATTTTCTTCCAAAC
AGAACTATGGAAAAAAAGGAAGAAATTCCAGGAAAATCTGCACTGTGGGCTTTTATTGCCATGAGCTAGAAGCAT
CACAGGTTGACCAATAACCATGCCCAAGAATGAGAAGAATGACTATGCAACCTTTGGATGCACTTTATATTATTT
TGAATCCAGAAATAATGAAATAACTAGGCGTGGACTTACTATTTATTGCTGAATGACTACCAACAGTGAGAGCCC
TTCATGCATTTGCACTACTGGAAGGAGTTAGATGTTGGTACTAGATACTGAATGTAAACAAAGGAATTATGGCTG
GTAACATAGGTTTTTAGTCTAATTGAATCCCTTAAACTCAGGGAGCATTTATAAATGGACAAATGCTTATGAAAC
TAAGATTTGTAATATTTCTCTCTTTTAGAGAAATTTGCCAATTTACTTTGTTATTTTTCCCCAAAAAGAATGGG
ATGATCGTGTATTTATTTTTTACTTCCTCAGCTGTAGACAGGTCCTTTTCGATGGTACATATTTCTTTGCCTTT
ATAATCTTTTATACAGTGTCTTACAGAGAAAAGACATAAGCAAAGACTATGAGGAATATTTGCAAGACATAGAAT
AGTGTTGGAAAATGTGCAATATGTGATGTGGCAAATCTCTATTAGGAAATATTCTGTAATCTTCAGACCTAGAAT
AATACTAGTCTTATAATAGGTTTGTGACTTTCCTAAATCAATTCTATTACGTGCAATACTTCAATACTTCATTTA
AAATATTTTTATGTGCAATAAAATGTATTTGTTTGTATTTTGTGTTCAGTACAATTATAAGCTGTTTTTATATAT
GTGAAATAAAAGTAGAATAAACACAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 673

MSSENCFVAENSSLHPESGQENDATSPHFSTRHEGSFQVPVLCAVMNVVFITILIIALIALSVGQYNCPGQYTFS
MPSDSHVSSCSEDWVGYQRKCYFISTVKRSWTSAQNACSEHGATLAVIDSEKDMNFLKRYAGREEHWVGLKKEPG
HPWKWSNGKEFNNWFNVTGSDKCVFLKNTEVSSMECEKNLYWICNKPYK

FIGURE 674A

CCGGGGTCCCCTTTCACCCAAGTGAGCCAGCTCAGGCTGTCTGCAAAGCCGGAGGTGCGGGCAGCTCCGGGCATT
GCATTGGTGCGGAGGCTTTTATATGCCAGAGAACCCTGAGTGTGCCCCTGACATGACAAGGAGCCGTCGTCGTTA
GGACTACCGACCAGACTCCCGGAAATC**ATG**TTGGTAGGATCCCAGTCTTTTTCGCCTGGAGGGCCCAATGGGATC
ATTAGAAGCCAGTCCTTTGCGGGTTTCAGCGGCCTCCAGGAAAGGCGATCCAGGTGTAACTCCTTCATTGAAAAT
TCCTCCGCTCTCAAGAAGCCTCAGGCCAAACTGAAGAAAATGCACAATTTAGGCCACAAAAACAACAATCCCCCC
AAAGAGCCTCAGCCTAAAAGGGTGGAAGAAGTCTACAGGGCCTTGAAAAATGGACTTGATGAATATCTGGAGGTT
CACCAGACGGAGCTGGACAAGTTGACAGCTCAGTTAAAAGATATGAAAAGAAACTCTCGCCTGGGTGTACTGTAT
GACCTAGACAAGCAAATTAAAACAATTGAAAGATACATGAGACGCCTGGAGTTTCATATAAGTAAGGTAGATGAA
CTCTATGAAGCTTATTGTATCCAGCGACGCCTCCAGGATGGTGCCAGCAAAATGAAGCAAGCCTTCGCAACATCC
CCTGCCAGCAAAGCTGCCCGGGAGAGTCTGACAGAGATCAATCGGAGCTTCAAGGAGTACACAGAGAATATGTGC
ACCATTGAAGTGGAGCTAGAGAATCTGCTGGGAGAATTCTCCATCAAGATGAAAGGTCTGGCTGGCTTTGCACGC
CTCTGTCCTGGAGATCAATATGAAATTTTCATGAAGTATGGCCGGCAGCGGTGGAAACTGAAAGGCAAAATAGAA
GTAAATGGCAAGCAGAGCTGGATGGAGAAGAAACAGTTTTTCTGCCCCTGATAGTTGGGTTCATCTCCATCAAG
GTCACGGAGCTCAAAGGGCTAGCAACTCACATCCTGGTAGGTAGCGTGACCTGTGAGACCAAAGAGCTGTTTGCA
GCCCGACCTCAGGTAGTGGCTGTCGACATCAATGACCTTGGTACCATCAAACTGAACCTGGAAATCACCTGGTAT
CCATTTGACATGGAGGACATGACCGCATCCTCAGGCGCTGGGAACAAGGCAGCAGCCCTTCAGAGGAGAATGTCC
ATGTACAGCCAGGGTACCCCGGAAACGCCCACCTTCAAAGACCACTCCTTCTTTAGGTGGCTGCATCCTTCCCCA
GACAAGCCCAGGCGGCTGTCTGTCTTGAGTGCCTTGCAAGACACTTTCTTTGCCAAGCTGCACCGCAGCCGCTCC
TTCAGTGACCTGCCCTCCCTCAGGCCGAGTCCCAAGGCCGTGCTAGAGCTCTATTCAAATCTACCTGATGACATC
TTTGAAAATGGAAAGGCAGCCGAGGAGAAAATGCCACTGTCGCTCAGCTTCAGTGACCTGCCCAACGGGGACTGC
GCCCTCACCTCCCACTCAACAGGCTCCCCTTCCAACTCAACAAATCCAGAAATTACCATCACCCCTGCGGAGTTT
AACCTCAGCAGCTTGGCCTCCCAGAATGAGGGTATGGATGACACCAGCTCAGCATCTTCCAGGAACTCCCTGGGA
GAAGGCCAAGAGCCAAAGTCACACCTGAAGGAGGAAGACCCAGAGGAGCCCAGAAAACCTGCCTCGGCCCCATCT
GAGGCTTGCCGCCGACAGTCCTCAGGTGCTGGGGCTGAGCACCTGTTCCTTGAGAATGATGTTGCAGAAGCACTT
CTGCAAGAGTCTGAGGAGGCCTCTGAGCTCAAGCCTGTGGAACTGGACACTTCGGAAGGAAACATCACAAAGCAG
CTGGTCAAGAGGCTCACATCTGCAGAGGTGCCAATGGCCACAGACAGGCTGCTCTCTGAGGGTTCTGTTGGTGGA
GAATCTGAAGGCTGCAGATCCTTTCTAGATGGAAGCTTAGAGGATGCTTTTAATGGGCTTTTACTTGCATTAGAA
CCACATAAAGAGCAGTATAAAGAGTTTCAGGATCTGAACCAAGAAGTCATGAATTTGGATGATATTCTAAAATGC
AAGCCAGCAGTAAGCCGCAGCAGGTCTTCCAGTTTAAGTCTCACAGTTGAAAGTGCTTTAGAAAGCTTTGATTTC
CTGAACACCTCTGATTTTGACGAGGAGGAGGATGGTGATGAGGTTTGTAATGTTGGCGGAGGTGCTGACTCAGTA
TTTTCAGACACTGAGACTGAGAAACACAGTTACAGGTCGGTTCACCCAGAAGCCAGGGGGCATCTCAGTGAAGCG
CTCACTGAAGACACAGGAGTTGGGACCAGTGTGGCAGGAAGTCCTCTCCCACTGACCACAGGCAACGAGAGCCTG
GACATCACCATCGTCAGGCACCTCCAGTACTGCACCCAACTCGTGCAGCAAATTGTTTTCTCAAGCAAAACCCCA
TTTGTGGCAAGAAGTCTCTTAGAGAAGCTTTCTAGGCAGATCCAAGTGATGGAGAAACTCGCAGCTGTCAGTGAT
GAGAACATAGGAAATATCAGTTCTGTTGTGGAAGCCATACCAGAATTTCACAAAAAGCTGTCTTTGCTGTCATTC
TGGACCAAGTGCTGCAGCCCTGTTGGTGTCTACCACAGCCCAGCGGACAGAGTGATGAAGCAGCTGGAGGCCAGC
TTTGCCAGAACTGTCAACAAAGAATATCCAGGACTTGCAGACCCAGTGTTTCGAACCCTGGTGTCCCAAATTCTG
GACCAGGCTGAGCCTCTGCTTTCCTCCAGCCTGTCCTCGGAAGTCGTCACTGTTTTCCAGTATTACAGTTACTTC
ACCAGCCACGGCGTCAGTGACCTGGAGAGTTACCTGAGCCAGCTGGCCAGGCAAGTTTCCATGGTTCAGACTCTG
CAATCACTAAGAGATGAAAAACTGCTACAAACCATGAGTGACCTTGCTCCCAGCAACCTCCTGGCCCAGCAGGAA
GTACTCAGGACTCTGGCTCTGCTATTAACCAGAGAGGACAACGAAGTTAGCGAGGCTGTGACGCTTTACTTGGCA
GCAGCCTCCAAAAATCAGCATTTCAGGGAAAAGGCCTTGCTCTATTACTGTGAAGCACTAACAAAGACAAACCTC
CAGCTCCAGAAAGCAGCTTGCCTGGCTCTGAAAATCCTTGAGGCTACTGAAAGCATTAAAATGCTGGTGACATTG
TGTCAATCTGATACTGAAGAAATCAGAAATGTGGCCTCAGAAACCCTCTTGTCTCTGGGAGAAGATGGGCGGCTG
GCATATGAACAATTGGACAAATTTCCTCGAGACTGTGTTAAAGTCGGAGGTCGTCATGGAACTGAAGTTGCCACA
GCCTTT**TAA**TTACAGATTAACTGCCTAACAGCTGTCTTAATATCTGGCCCTTTTCATCAGGATGGTGCTGTGGTT
TGGGCTGGAAATTGTTTAGAGCCTGAGAGACACGACAACTGAAATAAAAATGTAGGCCAGGTGCAGTGGCTCATG
CCTGTAATCCCAGTACTTTGGGAGGCCAACGCAGGAGAATTGCTTAAGCCCAGGAGGTTCAAGACCAACCTGGGC

FIGURE 674B

AACATAGCAAGGCCCTGTCTCTACAAAAAAAATAGTTTAATTAGTCGGGCGTGGTGGCATGCACCTGTAGTCCCA
GCTACTTGGGAGGCTAAGGTGGGAGGATTGCTTGAGCCCAGAAGATTCAGGCTGCAGTGAGCCATAATTGCCCCA
CTGCACTCCAGACTGGGTGACAGAGCAAAACCCTGTCTCAAAAAACAAAACAACAACAACAACTAAAAAAACATG
TTATAGAAAGAATTCAGAGTCTCGTTTCACAGTACCTATCTACTTTTCCTTTGGCCAATATAGAATAGGGCTATG
GTATAATTCAAATAGATTACATCGTCGATTGTGTCTAATAATACTCAGTGAAAGAGTCCATCTTATCTTAATATG
TATGAAATTTAAAAATAGCCATCTTTGTACTTTTTTGCAAGTTTCTCTATAAGCTTGAAATAGTCATGTGATACT
TCGACAAACATCATATGCCTTGCAGTTTTTCTCGGTCGTGTTCTCAGGGTTGAGTAGTCCCCTTAGCTACCTAAC
TTTACTTTCAATACAAAGCACAAAAAGAATACTTCAAATAAAAGTTTGCCTGCAGAACCTGGCAAAATGACCCA
TTATGAGAGTTTAGATGTTTTAATTTTATGTGCTCCCAGCTACTCTGGAGTCTGAGGTGGGAGGATCACTTGAGG
CAGAGGTTGCAGTAAGCTGAGATTACACTACTGCACTCCAGCCCATGTGACAGAGGAATGAGAGCCAGTCTCAAA
AAAAAAAAACAAAAAACTCCCATAATTTATTTTGTTTCTTTTCCCCATCCTGAAAATTCCCAAATCATGTTTCCA
TTATGGAAAAATGATAAGTAAATGACTAAGAACTACATTAAGATTATGCCTATACACTTAAACAAAAAACTCAAA
GCTTATGCTTTTTTTTTTTAATTAATGAGAGCTATTTTTATGATATTCTTACCATAGGGGTGTTTTGCTGCTAA
GACAAATCAAAACCAAAAGCTGTAGATTCACAAACCTGTGATGCTCTTTGAGGTGGAGGAACCTAGAAGTCAGAG
AAATCCTAATGGAGTAGGAGTGGAGGAACATTTAAAGTGGTCCCTCCTTCTGTAAAAATGACCGTGGGATTAGAA
AGAAGGACATCCTGAGGGGTGGTTACTGCCCCCAGGGAAATCACTCACTGGTAGGATTCCCTGGCCAAATAGTTC
AAACATCAGGTCCCATTATTGCTTCAGTATCAGAGATGCAAGTTCATTAAGCAAAGTACAAGACCATTCAGTAGC
TCTTATTAAAATATCTTTTCTTCCTCTAAAGAGTGTACAAGGTGGGGTATGCCAAGGTATCAAAACAATATATGT
GAGTGTAATTTAAACTGTGGAATATCAACTGTACTATGGACGTGTTTGTATCATTTAGATGTCATTTTAAATATT
TACATTTTAGCAAGACTTTTAAAAAGGACTCATTTCATTTCAAAGTGCAAATTGTTTGCCAGGCTTCTGGCAAAT
GGTTCTTTCAACTGTGAACTTATAGTGTACATATCTGTATATTTATAAATATTATATATATTCATACATCCTTCA
GTTTAAAGGTACATTGTACAGTCTGTAGTTAGGAGGTATAGCCTATAGCTTATGTTAAATGGTTGAAATGGTTCT
TTTTATAGAAAGTCAAACACAGATGTTACAGGATTTTGTGTTTGGTTTGTCATTTTTTTATTTTTTATTTTGACT
ATTGCATGAGTAATTAATTCCAGATCTTTTGTATTCACTTCTGTATTTTATGTTTGGTTGAGGGGTGCTTTTAGT
TGTGTGGCATTTGTATTCATTGATCTTTCAGTCATGTAAGTTAAAATAAAAATTATTTTTGAATTACTAGC

FIGURE 675

MLVGSQSFSPGGPNGIIRSQSFAGFSGLQERRSRCNSFIENSSALKKPQAKLKKMHNLGHKNNNPPKEPQPKRVE
EVYRALKNGLDEYLEVHQTELDKLTAQLKDMKRNSRLGVLYDLDKQIKTIERYMRRLEFHISKVDELYEAYCIQR
RLQDGASKMKQAFATSPASKAARESLTEINRSFKEYTENMCTIEVELENLLGEFSIKMKGLAGFARLCPGDQYEI
FMKYGRQRWKLKGKIEVNGKQSWDGEETVFLPLIVGFISIKVTELKGLATHILVGSVTCETKELFAARPQVVAVD
INDLGTIKLNLEITWYPFDMEDMTASSGAGNKAAALQRRMSMYSQGTPETPTFKDHSFFRWLHPSPDKPRRLSVL
SALQDTFFAKLHRSRSFSDLPSLRPSPKAVLELYSNLPDDIFENGKAAEEKMPLSLSFSDLPNGDCALTSHSTGS
PSNSTNPEITITPAEFNLSSLASQNEGMDDTSSASSRNSLGEGQEPKSHLKEEDPEEPRKPASAPSEACRRQSSG
AGAEHLFLENDVAEALLQESEEASELKPVELDTSEGNITKQLVKRLTSAEVPMATDRLLSEGSVGGESEGCRSFL
DGSLEDAFNGLLLALEPHKEQYKEFQDLNQEVMNLDDILKCKPAVSRSRSSSLSLTVESALESFDFLNTSDFDEE
EDGDEVCNVGGGADSVFSDTETEKHSYRSVHPEARGHLSEALTEDTGVGTSVAGSPLPLTTGNESLDITIVRHLQ
YCTQLVQQIVFSSKTPFVARSLLEKLSRQIQVMEKLAAVSDENIGNISSVVEAIPEFHKKLSLLSFWTKCCSPVG
VYHSPADRVMKQLEASFARTVNKEYPGLADPVFRTLVSQILDQAEPLLSSSLSSEVVTVFQYYSYFTSHGVSDLE
SYLSQLARQVSMVQTLQSLRDEKLLQTMSDLAPSNLLAQQEVLRTLALLLTREDNEVSEAVTLYLAAASKNQHFR
EKALLYYCEALTKTNLQLQKAACLALKILEATESIKMLVTLCQSDTEEIRNVASETLLSLGEDGRLAYEQLDKFP
RDCVKVGGRHGTEVATAF

FIGURE 676

CCCGCCTCTTCCTCCCTTCCTTCTTTCCTTGCTTTCGCCGCGCACTCCGCCGCC**ATG**GAGCAGCGCCGCGTCACC
GACTTCTTCGCGCGCCGCCGCCCCGGGCCCCCCCGCATCGCGCCGCCCAAGCTGGCCTGCCGCACCCCCAGCCCC
GCCAGGCCCGCACTCCGCGCCCCGGCCTCCGCTACCAGTGGCAGCCGCAAGCGCGCCCGCCCGCCCGCCGCCCCC
GGACGCGACCAGGCCAGGCCACCGGCCCGCAGGAGACTGCGGCTGTCGGTGGACGAGGTTTCCAGCCCCAGTACC
CCCGAGGCCCCAGACATCCCAGCCTGCCCTTCTCCGGGCCAGAAGATAAAGAAATCCACCCCGGCAGCAGGTCAG
CCGCCCCACCTGACATCCGCGCAGGACCAGGACACCATCTCTGAGCTTGCGTCATGCCTGCAACGGGCCCGGGAG
CTGGGGGCAAGAGTCCGGGCGCTGAAGGCCAGTGCCCAGGATGCTGGGGAGTCCTGCACCCCAGAGGCCGAGGGC
CGCCCTGAGGAGCCATGTGGCGAGAAGGCGCCCGCCTACCAGCGCTTCCATGCCCTGGCCCAGCCCGGCCTGCCG
GGACTCGTGCTGCCCTACAAGTACCAGGTGCTGGCGGAGATGTTCCGCAGCATGGACACCATCGTGGGCATGCTC
CACAACCGCTCCGAGACGCCCACCTTTGCCAAGGTCCAGCGGGGCGTCCAGGACATGATGCGTAGGCGTTTTGAG
GAGCGCAATGTTGGCCAGATCAAAACCGTGTACCCGGCCTCCTACCGCTTCCGCCAGGAGCGCAGTGTCCCCACC
TTCAAGGATGGCGCCAGGAGGTCAGATTACCAGCTCACCATCGAGCCACTGCTGGAGCAGGAGGCTGACGGAGCA
GCCCCCCAGCTCACGGCCTCGCGCCTCCTGCAGCGACGGCAGATCTTCAGCCAGAAGCTGGTGGAGCACGTCAAG
GAGCACCACAAGGCCTTCCTGGCCTCCCTGAGCCCCGCCATGGTGGTGCCGGAGGACCAGCTGACCCGCTGGCAC
CCGCGCTTCAACGTGGATGAAGTACCCGACATCGAGCCGGCCGCGCTGCCCCAGCCACCCGCCACGGAGAAGCTC
ACCACTGCTCAGGAGGTGCTGGCCCGGGCCCGCAACCTGATTTCACCCAGGATGGAGAAGGCCTTGAGTCAATTG
GCCCTGCGCTCTGCTGCGCCCAGCAGCCCCGGGTCTCCCAGGCCAGCACTGCCGGCTACCCCACCAGCCACCCCG
CCTGCAGCCTCTCCCAGTGCTCTGAAGGGGGTGTCCCAGGATCTGCTGGAGCGGATCCGAGCCAAGGAGGCACAG
AAGCAGCTGGCACAGATGACGCGGTGCCCGGAGCAGGAGCAGCGGCTGCAGCGCTTAGAACGGCTGCCTGAGCTG
GCCCGCGTGCTGCGGAGCGTCTTTGTGTCCGAACGCAAGCCTGCGCTCAGCATGGAGGTGGCCTGTGCCAGGATG
GTGGGCAGCTGTTGTACTATCATGAGCCCTGGGGAAATGGAGAAGCACCTGCTGCTCCTCTCCGAGCTGCTGCCG
GACTGGCTCAGCCTCCACCGCATCCGCACCGACACCTACGTCAAGCTGGACAAGGCCGCGGACCTGGCCCACATC
ACTGCACGCCTGGCCCACCAGACACGTGCTGAGGAGGGGCTG**TGA**GCCTGGGGGCCACTGTGGACAGACGTGGGC
TTCAGAAGCTCGCTGGCCTGGGCCCACCAGCATTTTCTTTTATGAACATGATACACTTTGGCCTTCCTTTCCCCA
GCGCCCCTGAGGGCCAGAGGCAGATGTGGGCTGCAGGCTGCACAGCCCGAGGGTCTCTGGCTGCGGGCGGTGGGC
CCCTTCATGGGGCTCACCTGGTGGATTCACATTAAACCGGTTTCTGTGGGCACCTTTGTCCTTGCTGCTGGTGGG
GAAGGGAAGCCAGATCCAGCACCCCCTGGGGGGCCATCGGGAGTGTGGCTGGGGGTGAAGGGGGCTCTGTGGCAA
TATGGGGGTTGGGTAGTGTGGGTGGCAGGCCATCCCCTCTAATCTTGGAACCTCTGAATATGGGACCTCCCACAGC
AAAGGGTGACTTTTGTCATTAAGAAAGACTGGGGTGGGTGTGGTGGCTCACGCCTGTAACCCCAGCACTTTGGGA
GGCCAAGGTGGGCAGATCACGAGGTCAAGAGATCGAGACCATCCTGGCGAACATGGTGAAACCCCATCTCTACTA
AAAATACAAAAAATTAGCCGGGTGTGGTGGTGGGCACCTGTCGTCCCAGCTACTAGGGAGGCTGAGGCAGGAGAA
TGGTGTGAACCCAGGAGGCACAGCTTGCAGTGAGCGAAGATCGCACCACTGCACGCACTCCAGCCTGGGTGACAG
AGCGAGACTCCGTCTCAAAAAAAAAAATTTCAAGACTGGAGAGGTGATCCTGAATTGTCCAGCTACGCCCCATGT
CATCACAGGGCCTTCATGACAGGGCCAGAGCCAGCAGCTTTGAAGACGCGGCCCTGCCCCGACACAGGCAGCCT
GGAGAAGCTGGGCAGGACAAGTAGGACATCCCTGGAGCCTCCAGAAGGGACTGGCCTCTGCCCACACCTTGACTT
CAGTATTTCTGACCTCCTAAACTCTAATAAAGTCATGCTTACAGCCACTAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 677

MEQRRVTDFFARRRPGPPRIAPPKLACRTPSPARPALRAPASATSGSRKRARPPAAPGRDQARPPARRRLRLSVD
EVSSPSTPEAPDIPACPSPGQKIKKSTPAAGQPPHLTSAQDQDTISELASCLQRARELGARVRALKASAQDAGES
CTPEAEGRPEEPCGEKAPAYQRFHALAQPGLPGLVLPYKYQVLAEMFRSMDTIVGMLHNRSETPTFAKVQRGVQD
MMRRRFEERNVGQIKTVYPASYRFRQERSVPTFKDGARRSDYQLTIEPLLEQEADGAAPQLTASRLLQRRQIFSQ
KLVEHVKEHHKAFLASLSPAMVVPEDQLTRWHPRFNVDEVPDIEPAALPQPPATEKLTTAQEVLARARNLISPRM
EKALSQLALRSAAPSSPGSPRPALPATPPATPPAASPSALKGVSQDLLERIRAKEAQKQLAQMTRCPEQEQRLQR
LERLPELARVLRSVFVSERKPALSMEVACARMVGSCCTIMSPGEMEKHLLLLSELLPDWLSLHRIRTDTYVKLDK
AADLAHITARLAHQTRAEEGL

FIGURE 678

GCTCAGATACGCGACGCGTAGCAGGCGGGGACCGAACGGGTGCCTCAGTGTCCTTCCCCTCCCCTCGCCTGGCCT
CGCCGTCCTCTCCCCGCAGCCGGACCGGAACTATGTGATCCCGGAAGTTCCGGGGCCTTTGCTGTGTGGGATAAA
CAGTA**ATG**GCGGAGGCTGCAACTCCCGGAACAACAGCCACAACATCAGGAGCAGGAGCGGCAGCGGCGACGGCGG
CAGCAGCCTCCCCCACCCCGATCCCCACAGTCACCGCCCCGTCCCTGGGGGCGGGCGGAGGGGGCGGCGGCAGCG
ACGGCAGCGGCGGCGGCTGGACTAAACAGGTCACCTGCAGGTATTTTATGCATGGGGTTTGTAAGGAAGGAGACA
ACTGTCGCTACTCGCATGACCTCTCTGACAGTCCGTATAGTGTAGTGTGCAAGTATTTTCAGCGAGGGTACTGTA
TTTATGGAGACCGCTGCAGATATGAACATAGCAAACCATTGAAACAGGAAGAAGCAACTGCTACAGAGCTAACTA
CAAAGTCATCCCTTGCTGCTTCCTCAAGTCTCTCATCGATAGTTGGACCACTTGTTGAAATGAATACAGGCGAAC
GTGAGTCAAGAAATTCAAACTTTGCAACTGTAGGAGCAGGTTCAGAGGACTGGGTGAATGCTATTGAGTTTGTTC
CTGGGCAACCCTACTGTGGCCGTACTGCGCCTTCCTGCACTGAAGCACCCCTGCAGGGCTCAGTGACCAAGGAAG
AATCAGAGAAAGAGCAAACCGCCGTGGAGACAAAGAAGCAGCTGTGCCCCTATGCTGCAGTGGGAGAGTGCCGAT
ACGGGGAGAACTGTGTGTATCTCCACGGAGATTCTTGTGACATGTGTGGGCTGCAGGTCCTGCATCCAATGGATG
CTGCCCAGAGATCGCAGCATATCAAATCGTGCATTGAGGCCCATGAGAAGGACATGGAGCTCTCATTTGCCGTCA
GCAGCAAGGACATGGTGTGTGGGATCTGCATGGAGGTGGTCTATGAGAAAGCCAACCCCAGTGAGCGCCGCTTCG
GGATCCTCTCCAACTGCAACCACACCTACTGTCTCAAGTGCATTCGCAAGTGGAGGAGTGCTAAGCAATTTGAGA
GCAAGATCATAAAG**TGA**GACTCCTCCCCAGTCTTCATTTGTGCTTTCTCTTTTGGGGAAGAATTTAGTAACTTGT
GCCAACTTTCAACCAGATGGACCGCATTTAAATGCATGCATTTTATCTTGAAACTGGGATATTCTAATGGGGATT
TCTTCTTTGTATTTCAGCTAGCTTCTAGGTTAGTTGGTCTATCTACTTTTATTTGAATGAGGAAACCCTGTGTAT
CAGTTAGAATCTTCGTGCTTTTTCTGAGGAGATTGTGTTTAATGGATTATTAGCCAGTTTAGGCTCAGTGAACAA
ACTGATCTAGCTCTGAATGTATGTTTCCTGACGTTTTACATTTCCACTTTCCTATTCCATTCATTAAGCTAGCCA
ACAATCCACCATCCTTTAAAGATTGTTCTCATAACTGAACAAAAACCACATAATCTAAACAGAGCAAAGCTACAA
GAAATAAATTTATTTAAACGAAAAAAAAAAAAAAAA

FIGURE 679

MAEAATPGTTATTSGAGAAAATAAAASPTPIPTVTAPSLGAGGGGGGSDGSGGGWTKQVTCRYFMHGVCKEGDNC
RYSHDLSDSPYSVVCKYFQRGYCIYGDRCRYEHSKPLKQEEATATELTTKSSLAASSSLSSIVGPLVEMNTGERE
SRNSNFATVGAGSEDWVNAIEFVPGQPYCGRTAPSCTEAPLQGSVTKEESEKEQTAVETKKQLCPYAAVGECRYG
ENCVYLHGDSCDMCGLQVLHPMDAAQRSQHIKSCIEAHEKDMELSFAVSSKDMVCGICMEVVYEKANPSERRFGI
LSNCNHTYCLKCIRKWRSAKQFESKIIK

FIGURE 680

GGCTCGAGTGCCTGGCGGGCTCTGGCTTCCGCGTCCGCCCCTGCTCCGGCTTCGCCCGCAGCTCCGCGCCCGCGG
GCAACCAAGCCCCCAGCGAAGCCCGCACAGCTCCGGGTGCCAGGACGGGGGGCC**ATG**CCGTGCCGGAGGGAGGAG
GAAGAGGAAGCCGGCGAGGAGGCGGAGGGGGAGGAAGAGGAGGACGACAGCTTCCTCCTGCTGCAGCAGTCGGTG
ACGCTGGGCAGCTCGGGCGAGGTGGACCGGCTGGTGGCCCAGATCGGCGAGACGCTGCAGCTGGACGCGGCGCAG
GACAGCCCGGCCTCGCCGTGCGCGCCCCCGGGGGTGCCGCTGCGGGCCCCGGGGCCCCTGGCTGCGGCGGTGCCG
GCGGACAAGGCCCGGCCCCCGGCGGTGCCGCTGCTGCTGCCGCCCGCTTCGGCTGAGACGGTGGGCCCGGCGCCC
TCTGGGGCCCTGCGCTGCGCCCTAGGGGACCGCGGCCGCGTGCGCGGACGCGCTGCGCCCTACTGCGTGGCGGAG
GTCGCCGCAGGCCCCAGCGCGCTGCCGGGGCCGTGCCGGCGAGGATGGCTCAGGGACGCGGTCACCTCCCGCCGC
TTGCAGCAGCGCCGATGGACCCAAGCCGGGGCACGCGCCGGCGACGACGACCCGCATCGGCTCCTCCAGCAGCTC
GTGCTCTCGGGAAACCTCATCAAGGAAGCCGTGCGGAGACTCCAACGAGCCGTCGCCGCGGTTGCAGCCACGGGC
CCCGCAAGCGCCCCTGGGCCCGGGGGAGGCCGCAGCGGACCTGACCGCATTGCCCTGCAGCCCTCAGGCTCCTTG
CTC**TGA**CGCAGGCCTCCTGGAGGAGGAAGTGGAGGCCGCTGCGTAGACCCAACAGCGTCCAGTTCCTACTAACTC
TGAGCTGAAGCCGACGTCGCCAGCCTGGGAGCGACCACTTTGGCTGCGGGGAGGCGCGTGGGGAGAGATCTCAAC
CAGAGAAGTTACCAGCCGCGGCGAGGCCGTCGGAGAAAACTTAAGCGTGGAGAAATGTATGCGCCAGGGTGCTTC
CGTGGGGCATGAGAATTTCCCGGGCCATCCAAGCCCAAGGACCTGGGATAAACTGGGAGAACTATGGCAGCTACT
TGCATCGACTTGTACCTCACTTAGCCCTTGGGGGCGTCGTGAGCTTGGATTGTTTAAGGAGGGCTCAGGGGTAGG
AATCGCGATGGCTTTATAACAATACTTGAAAACTAACGACACGCATACATTTTCTTATTTTCTGGTGGAGGAGCT
TAGTAAGTGGTGCTACAATTGCTGTGCAAAGAAATTCCAGAGGGGAGAAGAATGTAAAAGTTTGGTGGTGGGTGG
CTTGGCATTGCCCCTTTTTCCCACCGATTCGGTGGCTGGTGAAGGTGGGAGATGTGAACTCCAATTAAGGGACTG
GAGAGAGGTGAAGAATTTTGCAGGTGGGAGATTTGGATTTGAATGTGGACTTGTAAATGACTTGACCTTGCCATC
TGTGTTCAAGGTCACGGTTTGCTGTGGGGTTCCTGGGAGAGCTTACTCACCCCGGAGTCTTTTCTTTCTCTTGCT
CCAAGAAGAGCCCTGTTGGTGCTTTACCACCGCTTGGAGTCTCCCGAGGACACAAACAGGCAGAGAGGGACGTGT
AGGGAGAGTTCTTTCCTGTTTTCTGTGCTTTCCTTTTTACAGGACTCCCGGAAGGCCACTCATGGCCATGCCAGG
AGCTTTCTCAGAAACAGTCATAAACGATCTCTTGAGTCTCTTTCTTGTCCTCCCAGCTGAGCTTTCTTATTCCAC
CCTTTCTGGTGTCTATAGGAATGCATGAGAGACCCTGGACGTTTTTCTGCTCTCTTCTGGCCCTCCATGGAGCCA
TGGGCCTCGGCCTCGGCGGCTCCTCACCCTCACAATTTATTTCCTCCTCCCGTGCCAGCCCTTCTTTTGTGTCTG
AAACCGGTTTTAAAATGTGACTCTCCCAGAGAAGAAGCCGCTGGCTGTATGAAACTTGACGGCGCTTTTGTAAGG
TGCCACCCCCAAACTTTAAGGTAGCTAAACCAATTTTTAAAAGATTCAATGGCTTGTTCATCCTCCAGATGTAGC
TATTGATGTACACTTCGCAACGGAGTGTCTGAAATTGTGGTGGTCCTGATTTATAGGATTTCAT

FIGURE 681

MPCRREEEEEAGEEAEGEEEEDDSFLLLQQSVTLGSSGEVDRLVAQIGETLQLDAAQDSPASPCAPPGVPLRAPG
PLAAAVPADKARPPAVPLLLPPASAETVGPAPSGALRCALGDRGRVRGRAAPYCVAEVAAGPSALPGPCRRGWLR
DAVTSRRLQQRRWTQAGARAGDDDPHRLLQQLVLSGNLIKEAVRRLQRAVAAVAATGPASAPGPGGGRSGPDRIA
LQPSGSLL

FIGURE 682

ATGGCTGTGTGAACGACTGCC**ATG**GCCCACCGGAAGCTTGAGAGCGTGGGGAGCGGCATGTTGGACCATAGGGTG
AGACCAGGTCCTGTCCCTCACAGCCAGGAGCCCGAGAGCGAGGACATGGAGCTGCCCTTGGAGGGCTATGTGCCC
GAGGGCCTGGAGCTGGCTGCCCTGCGGCCAGAGAGCCCCGCGCCAGAGGAACAGGAGTGCCACAACCACAGCCCC
GATGGGGACTCCAGCTCTGACTACGTGAACAACACCTCTGAGGAGGAGGACTATGACGAGGGCCTCCCTGAGGAG
GAGGAGGGCATCACCTACTACATCCGCTACTGCCCTGAGGACGACAGCTACCTAGAGGGCATGGACTGCAACGGG
GAGGAGTACCTGGCCCACAGTGCACACCCTGTGGACACTGATGAATGCCATGAGGCGGTGGAGGAGTGGACGGAC
TCGGCGGGCCCGCACCCCCACGGCCACGAGGCTGAAGGCAGCCAGGACTACCCAGACGGCCAACTGCCCATTCCG
GAGGATGAGCCCTCCGTCCTTGAGGCCCATGACCAGGAAGAAGATGGTCACTACTGTGCCAGCAAAGAGGGCTAC
CAGGACTACTACCCAGAGGAGGCCAACGGGAACACCGGCGCCTCCCCCTACCGCCTGAGGCGTGGGGATGGGGAC
CTGGAGGACCAGGAGGAGGACATTGACCAGATCGTGGCAGAGATCAAGATGAGTCTGAGCATGACCAGCATCACC
AGCGCCAGTGAGGCCAGCCCCGAGCATGGGCCTGAGCCAGGGCCTGAGGACTCTGTAGAGGCCTGCCCACCCATC
AAGGCCAGCTGCAGCCCCAGCAGGCACGAGGCGAGGCCCAAGTCGCTGAACCTCCTTCCCGAGGCCAAGCACCCC
GGAGACCCCCAGAGAGGCTTCAAGCCCAAGACCAGGACCCCAGAAGAGAGGCTGAAGTGGCCCCACGAGCAGGTT
TGCAATGGTCTGGAGCAGCCAAGGAAGCAGCAGCGCTCTGATCTCAATGGACCTGTTGACAATAACAACATTCCA
AAAACAAAAAAGGTGGCATCATTTCCAAGTTTGGTGGCTGTTCCAGGGCCCTGCGAACCAAAAAACCTCATCGAC
GGGATCATCTTTGCTGCCAATTACCTGGGGTCCACCCAGCTGCTATCAGAACGGAACCCTTCCAAAAACATCAGA
ATGATGCAAGCGCAGGAGGCCGTCAGCCGGGTCAAGAGGATGCAAAAGGCTGCTAAGATCAAGAAAAAAGCGAAT
TCTGAGGGGGATGCCCAGACGCTGACGGAAGTGGACCTCTTCATTTCCACCCAGAGGATCAAGGTTTTAAATGCA
GACACGCAGGAAACCATGATGGACCACGCCTTGCGTACCATCTCCTACATCGCCGACATTGGGAACATTGTAGTG
CTGATGGCCAGACGCCGCATGCCCCGGTCAGCCTCTCAGGACTGCATCGAGACCACGCCCGGGGCCCAGGAAGGC
AAGAAGCAGTATAAGATGATCTGCCATGTGTTCGAGTCGGAGGATGCCCAGCTCATCGCCCAGTCTATCGGCCAG
GCCTTCAGCGTGGCCTACCAGGAGTTCCTGCGAGCCAATGGCATCAACCCCGAAGACTTGAGCCAGAAGGAATAC
AGCGACATCATCAACACCCAGGAGATGTACAACGACGACCTCATCCACTTCTCAAACTCGGAGAACTGCAAGGAG
CTGCAGCTGGAGAAGCACAAGGGCGAGATCCTGGGCGTGGTGGTGGTGGAGTCGGGCTGGGGCTCCATCCTGCCC
ACGGTGATCCTGGCCAACATGATGAATGGCGGCCCGGCTGCCCGCTCGGGGAAGCTGAGCATCGGGGACCAGATC
ATGTCCATCAATGGCACCAGCCTGGTGGGGCTGCCCCTCGCCACCTGCCAAGGCATCATCAAGGGCCTGAAGAAC
CAGACACAGGTGAAGCTCAACATTGTCAGCTGTCCCCCGGTCACCACGGTCCTTATCAAGCGGCCAGACCTCAAG
TACCAGCTGGGCTTCAGCGTGCAGAATGGAATTATCTGCAGCCTCATGAGAGGGGGCATTGCTGAGCGAGGGGGC
GTCCGTGTGGGCCACCGCATCATCGAGATCAACGGGCAGAGCGTGGTGGCCACAGCCCACGAGAAGATAGTCCAA
GCTCTGTCCAACTCGGTCGGAGAGATCCACATGAAGACCATGCCCGCCGCCATGTTCAGGCTCCTCACGGGTCAG
GAGACCCCGCTGTACATC**TAG**GCCACCCCAGCCTGGCCACGCAGCCAGGACACCGGGCAGGCCGCCCGGGCCCA
GAGGAGCTGGGAGCCGGGCCGCAGACTTGACCCCGACGCCACAGCCCAGCCACGGACGCTGGCTCCCCAAAGGGT
GTGCCCTCACCACCCACTTGATTTTTTTCATTTTGCCAAAAAGGGGTATGTCTTTATCAAAGGAGAGTCACAGAA
CAAATGTTTGTTTGTAAAGCGTTCCAAGTATTTTGCCACGTTCTGGACTGTCTTCTCCCTGCACAAGCCAGGGTG
TGTCTCGGTAGCTGTGCGTGGTGTGGAGTGTGTGTCTTTCCTCCCTGAAGCTGTGCGGAGCGAACTGGCGCCTCC
GAGGGACGCGGCTCCCGGGGCAGGGCAGCCGTCACCCCTGCCTCCCGCCCCCTTGGCTGGGACGTCTGGGGTCCT
GTGGGGCCCCCACAATGGTCCCAAACAGCTGCCTCTGCCACTGACTGCAGGGACACGGGCAGCCTGGCTCCCAGG
ACACGACTTGTAATGAAAGTTTGGGGACATGTGATTGATTGATTGATTGTAAATAAAGGATGATGGCCACA
ACATGAAAACTCCATATTTATTTAGATGCTATTATTACTGTTTGGACTTTTATTTTGGCAGGCTTTTTTCCAGAC
TCTAGGGTTTTCCAATGTGACTAATGACCACACCTGCCTCTCCCGTCGTCTCTTCTGGGCACCCTCCCACCCGGC
TGCATACCCGGCCAGGGCTCCCACAGAGACAAGGAXGGCACAGGTGTCTGCCCCCTCTTTAAAATCGATCTACAC
ACATCCACGCACATGCGACCCCGAGGGAAACGAAACCCACTCTAGAAAACGCGACCTTGGCCGCACCTAAAGCAG
CCAGCCGTGAGTGCAGACCCCTTGGCCAGCGTGGCGCAGTGGCCCTGAGCAGTAGTGGCATGTGTGTAGATCAAG
TCGGATCTAGTCCAGCTCGGTTCATTAGCGATCCATGTAATCTGACGTCATCTTGTCTCGAAGTCTCTTTTTTTG
GCCCAGGCCTTGAAGAATACACTGTGACTTAAGAAGCCTTACCACGCAGTAACTAAAGCTTTAGGATGACTGTAT
TCGAGGAGTGCCGTGTGTTGCATGCAGCTACCCGTAGGAAGACTTCGCGCATATCACTAATAAACCTGAAGTCGT
GATGACC

FIGURE 683

MAHRKLESVGSGMLDHRVRPGPVPHSQEPESEDMELPLEGYVPEGLELAALRPESPAPEEQECHNHSPDGDSSSD
YVNNTSEEEDYDEGLPEEEEGITYYIRYCPEDDSYLEGMDCNGEEYLAHSAHPVDTDECHEAVEEWTDSAGPHPH
GHEAEGSQDYPDGQLPIPEDEPSVLEAHDQEEDGHYCASKEGYQDYYPEEANGNTGASPYRLRRGDGDLEDQEED
IDQIVAEIKMSLSMTSITSASEASPEHGPEPGPEDSVEACPPIKASCSPSRHEARPKSLNLLPEAKHPGDPQRGF
KPKTRTPEERLKWPHEQVCNGLEQPRKQQRSDLNGPVDNNNIPKTKKVASFPSLVAVPGPCEPKNLIDGIIFAAN
YLGSTQLLSERNPSKNIRMMQAQEAVSRVKRMQKAAKIKKKANSEGDAQTLTEVDLFISTQRIKVLNADTQETMM
DHALRTISYIADIGNIVVLMARRRMPRSASQDCIETTPGAQEGKKQYKMICHVFESEDAQLIAQSIGQAFSVAYQ
EFLRANGINPEDLSQKEYSDIINTQEMYNDDLIHFSNSENCKELQLEKHKGEILGVVVVESGWGSILPTVILANM
MNGGPAARSGKLSIGDQIMSINGTSLVGLPLATCQGIIKGLKNQTQVKLNIVSCPPVTTVLIKRPDLKYQLGFSV
QNGIICSLMRGGIAERGGVRVGHRIIEINGQSVVATAHEKIVQALSNSVGEIHMKTMPAAMFRLLTGQETPLYI

FIGURE 684

TTTTTGCAACCAACATGGTTCTATTAAAAACTCTCTTTGACTATGGCATTCAAGGACAGCAATACAATCTTTTTT
TTTTTTAACAAAGCAACTAATATAAAAATCTGCAAATGCCATATATTCATATCTAGGCTATTCTTCTCATATAGG
CATGTCATTAGATAGACTTTCTTTCTATTCTTTCCTGAGGTATTTTTTTGTGGTTTACTTTTATTGTACTGCTGG
ATGCATTATTTTTGATCATCCTTTCCTAAAATGATTTAAAGACCTGCAAATAATTTTATTGCATAGGACACTATT
GATGACACATAGAATGGGAGCTGCAAGTATGTGGCATTGGAACAAGCCTTACAAATATTGCATTTTAAGAATACA
CACATTTTTTACAGTTTGTCTCTTTTAAAAAATTTGAAGTTATAGC

FIGURE 685A

CCTACTCTATTCAGATATTCTCCAGATTCCTAAAGATTAGAGATCATTTCTCATTCTCCTAGGAGTACTCACTTC
AGGAAGCAACCAGATAAAAGAGAGGTGCAACGGAAGCCAGAACATTCCTCCTGGAAATTCAACCTGTTTCGCAGT
TTCTCGAGGAATCAGCATTCAGTCAATCCGGGCCGGGAGCAGTCATCTGTGGTGAGGCTGATTGGCTGGGCAGGA
ACAGCGCCGGGGCGTGGGCTGAGCACAGCGCTTCGCTCTCTTTGCCACAGGAAGCCTGAGCTCATTCGAGTAGCG
GCTCTTCCAAGCTCAAAGAAGCAGAGGCCGCTGTTCGTTTCCTTTAGGTCTTTCCACTAAAGTCGGAGTATCTTC
TTCCAAGATTTCACGTCTTGGTGGCCGTTCCAAGGAGCGCGAGGTCGG**ATG**GATCTTGAAGGGGACCGCAATGG
AGGAGCAAAGAAGAAGAACTTTTTTAAACTGAACAATAAAAGTGAAAAAGATAAGAAGGAAAAGAAACCAACTGT
CAGTGTATTTTCAATGTTTCGCTATTCAAATTGGCTTGACAAGTTGTATATGGTGGTGGGAACTTTGGCTGCCAT
CATCCATGGGGCTGGACTTCCTCTCATGATGCTGGTGTTTGGAGAAATGACAGATATCTTTGCAAATGCAGGAAA
TTTAGAAGATCTGATGTCAAACATCACTAATAGAAGTGATATCAATGATACAGGGTTCTTCATGAATCTGGAGGA
AGACATGACCAGGTATGCCTATTATTACAGTGGAATTGGTGCTGGGGTGCTGGTTGCTGCTTACATTCAGGTTTC
ATTTTGGTGCCTGGCAGCTGGAAGACAAATACACAAAATTAGAAAACAGTTTTTTCATGCTATAATGCGACAGGA
GATAGGCTGGTTTGATGTGCACGATGTTGGGGAGCTTAACACCCGACTTACAGATGATGTCTCCAAGATTAATGA
AGGAATTGGTGACAAAATTGGAATGTTCTTTCAGTCAATGGCAACATTTTTCACTGGGTTTATAGTAGGATTTAC
ACGTGGTTGGAAGCTAACCCTTGTGATTTTGGCCATCAGTCCTGTTCTTGGACTGTCAGCTGCTGTCTGGGCAAA
GATACTATCTTCATTTACTGATAAAGAACTCTTAGCGTATGCAAAAGCTGGAGCAGTAGCTGAAGAGGTCTTGGC
AGCAATTAGAACTGTGATTGCATTTGGAGGACAAAAGAAAGAACTTGAAAGGTACAACAAAAATTTAGAAGAAGC
TAAAAGAATTGGGATAAAGAAAGCTATTACAGCCAATATTTCTATAGGTGCTGCTTTCCTGCTGATCTATGCATC
TTATGCTCTGGCCTTCTGGTATGGGACCACCTTGGTCCTCTCAGGGGAATATTCTATTGGACAAGTACTCACTGT
ATTTTCTGTATTAATTGGGGCTTTTAGTGTTGGACAGGCATCTCCAAGCATTGAAGCATTTGCAAATGCAAGAGG
AGCAGCTTATGAAATCTTCAAGATAATTGATAATAAGCCAAGTATTGACAGCTATTCGAAGAGTGGGCACAAACC
AGATAATATTAAGGGAAATTTGGAATTCAGAAATGTTCACTTCAGTTACCCATCTCGAAAAGAAGTTAAGATCTT
GAAGGGTCTGAACCTGAAGGTGCAGAGTGGGCAGACGGTGGCCCTGGTTGGAAACAGTGGCTGTGGGAAGAGCAC
AACAGTCCAGCTGATGCAGAGGCTCTATGACCCCACAGAGGGGATGGTCAGTGTTGATGGACAGGATATTAGGAC
CATAAATGTAAGGTTTCTACGGGAAATCATTGGTGTGGTGAGTCAGGAACCTGTATTGTTTGCCACCACGATAGC
TGAAAACATTCGCTATGGCCGTGAAAATGTCACCATGGATGAGATTGAGAAAGCTGTCAAGGAAGCCAATGCCTA
TGACTTTATCATGAAACTGCCTCATAAATTTGACACCCTGGTTGGAGAGAGAGGGGCCCAGTTGAGTGGTGGGCA
GAAGCAGAGGATCGCCATTGCACGTGCCCTGGTTCGCAACCCCAAGATCCTCCTGCTGGATGAGGCCACGTCAGC
CTTGGACACAGAAAGCGAAGCAGTGGTTCAGGTGGCTCTGGATAAGGCCAGAAAAGGTCGGACCACCATTGTGAT
AGCTCATCGTTTGTCTACAGTTCGTAATGCTGACGTCATCGCTGGTTTCGATGATGGAGTCATTGTGGAGAAAGG
AAATCATGATGAACTCATGAAAGAGAAAGGCATTTACTTCAAACTTGTCACAATGCAGACAGCAGGAAATGAAGT
TGAATTAGAAAATGCAGCTGATGAATCCAAAAGTGAAATTGATGCCTTGGAAATGTCTTCAAATGATTCAAGATC
CAGTCTAATAAGAAAAAGATCAACTCGTAGGAGTGTCCGTGGATCACAAGCCCAAGACAGAAAGCTTAGTACCAA
AGAGGCTCTGGATGAAAGTATACCTCCAGTTTCCTTTTGGAGGATTATGAAGCTAAATTTAACTGAATGGCCTTA
TTTTGTTGTTGGTGTATTTTGTGCCATTATAAATGGAGGCCTGCAACCAGCATTTGCAATAATATTTTCAAAGAT
TATAGGGGTTTTTACAAGAATTGATGATCCTGAAACAAAACGACAGAATAGTAACTTGTTTTCACTATTGTTTCT
AGCCCTTGGAATTATTTCTTTTATTACATTTTTCCTTCAGGGTTTCACATTTGGCAAAGCTGGAGAGATCCTCAC
CAAGCGGCTCCGATACATGGTTTTCCGATCCATGCTCAGACAGGATGTGAGTTGGTTTGATGACCCTAAAAACAC
CACTGGAGCATTGACTACCAGGCTCGCCAATGATGCTGCTCAAGTTAAAGGGGCTATAGGTTCCAGGCTTGCTGT
AATTACCCAGAATATAGCAAATCTTGGGACAGGAATAATTATATCCTTCATCTATGGTTGGCAACTAACACTGTT
ACTCTTAGCAATTGTACCCATCATTGCAATAGCAGGAGTTGTTGAAATGAAAATGTTGTCTGGACAAGCACTGAA
AGATAAGAAAGAACTAGAAGGTGCTGGGAAGATCGCTACTGAAGCAATAGAAAACTTCCGAACCGTTGTTTCTTT
GACTCAGGAGCAGAAGTTTGAACATATGTATGCTCAGAGTTTGCAGGTACCATACAGAAACTCTTTGAGGAAAGC
ACACATCTTTGGAATTACATTTTCCTTCACCCAGGCAATGATGTATTTTTCCTATGCTGGATGTTTCCGGTTTGG
AGCCTACTTGGTGGCACATAAACTCATGAGCTTTGAGGATGTTCTGTTAGTATTTTCAGCTGTTGTCTTTGGTGC
CATGGCCGTGGGGCAAGTCAGTTCATTTGCTCCTGACTATGCCAAAGCCAAAATATCAGCAGCCCACATCATCAT
GATCATTGAAAAAACCCCTTTGATTGACAGCTACAGCACGGAAGGCCTAATGCCGAACACATTGGAAGGAAATGT
CACATTTGGTGAAGTTGTATTCAACTATCCCACCCGACCGGACATCCCAGTGCTTCAGGGACTGAGCCTGGAGGT

FIGURE 685B

GAAGAAGGGCCAGACGCTGGCTCTGGTGGGCAGCAGTGGCTGTGGGAAGAGCACAGTGGTCCAGCTCCTGGAGCG
GTTCTACGACCCCTTGGCAGGGAAAGTGCTGCTTGATGGCAAAGAAATAAAGCGACTGAATGTTCAGTGGCTCCG
AGCACACCTGGGCATCGTGTCCCAGGAGCCCATCCTGTTTGACTGCAGCATTGCTGAGAACATTGCCTATGGAGA
CAACAGCCGGGTGGTGTCACAGGAAGAGATTGTGAGGGCAGCAAAGGAGGCCAACATACATGCCTTCATCGAGTC
ACTGCCTAATAAATATAGCACTAAAGTAGGAGACAAAGGAACTCAGCTCTCTGGTGGCCAGAAACAACGCATTGC
CATAGCTCGTGCCCTTGTTAGACAGCCTCATATTTTGCTTTTGGATGAAGCCACGTCAGCTCTGGATACAGAAAG
TGAAAAGGTTGTCCAAGAAGCCCTGGACAAAGCCAGAGAAGGCCGCACCTGCATTGTGATTGCTCACCGCCTGTC
CACCATCCAGAATGCAGACTTAATAGTGGTGTTTCAGAATGGCAGAGTCAAGGAGCATGGCACGCATCAGCAGCT
GCTGGCACAGAAAGGCATCTATTTTTCAATGGTCAGTGTCCAGGCTGGAACAAAGCGCCAG**TGA**ACTCTGACTGT
ATGAGATGTTAAATACTTTTTAATATTTGTTTAGATATGACATTTATTCAAAGTTAAAAGCAAACACTTACAGAA
TTATGAAGAGGTATCTGTTTAACATTTCCTCAGTCAAGTTCAGAGTCTTCAGAGACTTCGTAATTAAAGGAACAG
AGTGAGAGACATCATCAAGTGGAGAGAAATCATAGTTTAAACTGCATTATAAATTTTATAACAGAATTAAAGTAG
ATTTTAAAAGATAAAATGTGTAATTTTGTTTATATTTTCCCATTTGGACTGTAACTGACTGCCTTGCTAAAAGAT
TATAGAAGTAGCAAAAAGTATTGAAATGTTTGCATAAAGTGTCTATAATAAAACTAAACTTTCATGTG

FIGURE 686

MDLEGDRNGGAKKKNFFKLNNKSEKDKKEKKPTVSVFSMFRYSNWLDKLYMVVGTLAAIIHGAGLPLMMLVFGEM
TDIFANAGNLEDLMSNITNRSDINDTGFFMNLEEDMTRYAYYYSGIGAGVLVAAYIQVSFWCLAAGRQIHKIRKQ
FFHAIMRQEIGWFDVHDVGELNTRLTDDVSKINEGIGDKIGMFFQSMATFFTGFIVGFTRGWKLTLVILAISPVL
GLSAAVWAKILSSFTDKELLAYAKAGAVAEEVLAAIRTVIAFGGQKKELERYNKNLEEAKRIGIKKAITANISIG
AAFLLIYASYALAFWYGTTLVLSGEYSIGQVLTVFSVLIGAFSVGQASPSIEAFANARGAAYEIFKIIDNKPSID
SYSKSGHKPDNIKGNLEFRNVHFSYPSRKEVKILKGLNLKVQSGQTVALVGNSGCGKSTTVQLMQRLYDPTEGMV
SVDGQDIRTINVRFLREIIGVVSQEPVLFATTIAENIRYGRENVTMDEIEKAVKEANAYDFIMKLPHKFDTLVGE
RGAQLSGGQKQRIAIARALVRNPKILLLDEATSALDTESEAVVQVALDKARKGRTTIVIAHRLSTVRNADVIAGF
DDGVIVEKGNHDELMKEKGIYFKLVTMQTAGNEVELENAADESKSEIDALEMSSNDSRSSLIRKRSTRRSVRGSQ
AQDRKLSTKEALDESIPPVSFWRIMKLNLTEWPYFVVGVFCAIINGGLQPAFAIIFSKIIGVFTRIDDPETKRQN
SNLFSLLFLALGIISFITFFLQGFTFGKAGEILTKRLRYMVFRSMLRQDVSWFDDPKNTTGALTTRLANDAAQVK
GAIGSRLAVITQNIANLGTGIIISFIYGWQLTLLLLAIVPIIAIAGVVEMKMLSGQALKDKKELEGAGKIATEAI
ENFRTVVSLTQEQKFEHMYAQSLQVPYRNSLRKAHIFGITFSFTQAMMYFSYAGCFRFGAYLVAHKLMSFEDVLL
VFSAVVFGAMAVGQVSSFAPDYAKAKISAAHIIMIIEKTPLIDSYSTEGLMPNTLEGNVTFGEVVFNYPTRPDIP
VLQGLSLEVKKGQTLALVGSSGCGKSTVVQLLERFYDPLAGKVLLDGKEIKRLNVQWLRAHLGIVSQEPILFDCS
IAENIAYGDNSRVVSQEEIVRAAKEANIHAFIESLPNKYSTKVGDKGTQLSGGQKQRIAIARALVRQPHILLLDE
ATSALDTESEKVVQEALDKAREGRTCIVIAHRLSTIQNADLIVVFQNGRVKEHGTHQQLLAQKGIYFSMVSVQAG
TKRQ

FIGURE 687

GGCAGCTGCACGGCTCCTGGCCCCGGAGCATGCGCGAGAGCCGCCCCGGAGCGCCCCGGAGCCCCCCGCCGTCCC
GCCCGCGGCGTCCCGCGCCCCGCCGCCAGCGCACCCCCGGACGCTATGGCCCACCCCTCCGGCTGGCCCCTTCTG
TAGG**ATG**GTAGCACACAACCAGGTGGCAGCCGACAATGCAGTCTCCACAGCAGCAGAGCCCCGACGGCGGCCAGA
ACCTTCCTCCTCTTCCTCCTCCTCGCCCGCGGCCCCGCGCGCCCGCGGCCGTGCCCCGCGGTCCCGGCCCCGGC
CCCCGGCGACACGCACTTCCGCACATTCCGTTCGCACGCCGATTACCGGCGCATCACGCGCGCCAGCGCGCTCCT
GGACGCCTGCGGATTCTACTGGGGGCCCCTGAGCGTGCACGGGGCGCACGAGCGGCTGCGCGCCGAGCCCGTGGG
CACCTTCCTGGTGCGCGACAGCCGCCAGCGGAACTGCTTTTTCGCCCTTAGCGTGAAGATGGCCTCGGGACCCAC
GAGCATCCGCGTGCACTTTCAGGCCGGCCGCTTTCACCTGGATGGCAGCCGCGAGAGCTTCGACTGCCTCTTCGA
GCTGCTGGAGCACTACGTGGCGGCGCCGCGCCGCATGCTGGGGGCCCCGCTGCGCCAGCGCCGCGTGCGGCCGCT
GCAGGAGCTGTGCCGCCAGCGCATCGTGGCCACCGTGGGCCGCGAGAACCTGGCTCGCATCCCCCTCAACCCCGT
CCTCCGCGACTACCTGAGCTCCTTCCCCTTCCAGATT**TGA**CCGGCAGCGCCCGCCGTGCACGCAGCATTAACTGG
GATGCCGTGTTATTTTGTTATTACTTGCCTGGAACCATGTGGGTACCCTCCCCGGCCTGGGTTGGAGGGAGCGGA
TGGGTGTAGGGGCGAGGCGCCTCCCGCCCTCGGCTGGAGACGAGGCCGCAGACCCCTTCTCACCTCTTGAGGGGG
TCCTCCCCCTCCTGGTGCTCCCTCTGGGTCCCCCTGGTTGTTGTAGCAGCTTAACTGTATCTGGAGCCAGGACCT
GAACTCGCACCTCCTACCTCTTCATGTTTACATATACCCAGTATCTTTGCACAAACCAGGGGTTGGGGGAGGGTC
TCTGGCTTTATTTTTCTGCTGTGCAGAATCCTATTTTATATTTTTTAAAGTCAGTTTAGGTAATAAACTTTATTA
TGAAAGTTTTTTTTTT

FIGURE 688

MVAHNQVAADNAVSTAAEPRRRPEPSSSSSSSPAAPARPRPCPAVPAPAPGDTHFRTFRSHADYRRITRASALLD
ACGFYWGPLSVHGAHERLRAEPVGTFLVRDSRQRNCFFALSVKMASGPTSIRVHFQAGRFHLDGSRESFDCLFEL
LEHYVAAPRRMLGAPLRQRRVRPLQELCRQRIVATVGRENLARIPLNPVLRDYLSSFPFQI

FIGURE 689

GGCAGCTGCACGGCTCCTGGCCCCGGAGCATGCGCGAGAGCCGCCCCGGAGCGCCCCGGAGCCCCCCGCCGTCCC
GCCCGCGGCGTCCCGCGCCCCGCCGCCAGCGCACCCCCGGACGCTATGGCCCACCCCTCCGGCTGGCCCCTTCTG
TAGG**ATG**GTAGCACACAACCAGGTGGCAGCCGACAATGCAGTCTCCACAGCAGCAGAGCCCCGACGGCGGCCAGA
ACCTTCCTCCTCTTCCTCCTCCTCGCCCGCGGCCCCCGCGCGCCCGCGGCCGTGCCCCGCGGTCCCGGCCCCGGC
CCCCGGCGACACGCACTTCCGCACATTCCGTTCGCACGCCGATTACCGGCGCATCACGCGCGCCAGCGCGCTCCT
GGACGCCTGCGGATTCTACTGGGGGCCCCTGAGCGTGCACGGGGCGCACGAGCGGCTGCGCGCCGAGCCCGTGGG
CACCTTCCTGGTGCGCGACAGCCGCCAGCGGAACTGCTTTTTCGCCCTTAGCGTGAAGATGGCCTCGGGACCCAC
GAGCATCCGCGTGCACTTTCAGGCCGGCCGCTTTCACCTGGATGGCAGCCGCGAGAGCTTCGACTGCCTCTTCGA
GCTGCTGGAGCACTACGTGGCGGCGCCGCGCCGCATGCTGGGGGCCCCGCTGCGCCAGCGCCGCGTGCGGCCGCT
GCAGGAGCTGTGCCGCCAGCGCATCGTGGCCACCGTGGGCCGCGAGAACCTGGCTCGCATCCCCCTCAACCCCGT
CCTCCGCGACTACCTGAGCTCCTTCCCCTTCCAGATT**TGA**CCGGCAGCGCCCGCCGTGCACGCAGCATTAACTGG
GATGCCGTGTTATTTTGTTATTACTTGCCTGGAACCATGTGGGTACCCTCCCCGGCCTGGGTTGGAGGGAGCGGA
TGGGTGTAGGGGCGAGGCGCCTCCCGCCCTCGGCTGGAGACGAGGCCGCAGACCCCTTCTCACCTCTTGAGGGGG
TCCTCCCCCTCCTGGTGCTCCCTCTGGGTCCCCCTGGTTGTTGTAGCAGCTTAACTGTATCTGGAGCCAGGACCT
GAACTCGCACCTCCTACCTCTTCATGTTTACATATACCCAGTATCTTTGCACAAACCAGGGGTTGGGGGAGGGTC
TCTGGCTTTATTTTTCTGCTGTGCAGAATCCTATTTTATATTTTTAAAGTCAGTTTAGGTAATAAACTTTATTA
TGAAAGTTTTTTTTTT

FIGURE 690

MVAHNQVAADNAVSTAAEPRRRPEPSSSSSSSPAAPARPRPCPAVPAPAPGDTHFRTFRSHADYRRITRASALLD
ACGFYWGPLSVHGAHERLRAEPVGTFLVRDSRQRNCFFALSVKMASGPTSIRVHFQAGRFHLDGSRESFDCLFEL
LEHYVAAPRRMLGAPLRQRRVRPLQELCRQRIVATVGRENLARIPLNPVLRDYLSSFPFQI

FIGURE 691A

ATGGCTGGCGGAGCCTGGGGCCGCCTGGCCTGTTACTTGGAGTTCCTGAAGAAGGAGGAGCTGAAGGAGTTCCAG
CTTCTGCTCGCCAATAAAGCGCACTCCAGGAGCTCTTCGGGTGAGACACCCGCTCAGCCAGAGAAGACGAGTGGC
ATGGAGGTGGCCTCGTACCTGGTGGCTCAGTATGGGGAGCAGCGGGCCTGGGACCTAGCCCTCCATACCTGGGAG
CAGATGGGGCTGAGGTCACTGTGCGCCCAAGCCCAGGAAGGGGCAGGCCACTCTCCCTCATTCCCCTACAGCCCA
AGTGAACCCCACCTGGGGTCTCCCAGCCAACCCACCTCCACCGCAGTGCTAATGCCCTGGATCCATGAATTGCCG
GCGGGGTGCACCCAGGGCTCAGAGAGAAGGGTTTTGAGACAGCTGCCTGACACATCTGGACGCCGCTGGAGAGAA
ATCTCTGCCTCACTCCTCTACCAAGCTCTTCCAAGCTCCCCAGACCATGAGTCTCCAAGCCAGGAGTCACCCAAC
GCCCCCACATCCACAGCAGTGCTGGGGAGCTGGGGATCCCCACCTCAGCCCAGCCTAGCACCCAGAGAGCAGGAG
GCTCCTGGGACCCAATGGCCTCTGGATGAAACGTCAGGAATTTACTACACAGAAATCAGAGAAAGAGAGAGAG
AAATCAGAGAAAGGCAGGCCCCCATGGGCAGCGGTGGTAGGAACGCCCCCACAGGCGCACACCAGCCTACAGCCC
CACCACCACCCATGGGAGCCTTCTGTGAGAGAGAGCCTCTGTTCCACATGGCCCTGGAAAAATGAGGATTTTAAC
CAAAAATTCACACAGCTGCTACTTCTACAAAGACCTCACCCCAGAAGCCAAGATCCCCTGGTCAAGAGAAGCTGG
CCTGATTATGTGGAGGAGAATCGAGGACATTTAATTGAGATCAGAGACTTATTTGGCCCAGGCCTGGATACCCAA
GAACCTCGCATAGTCATACTGCAGGGGGCTGCTGGAATTGGGAAGTCAACACTGGCCAGGCAGGTGAAGGAAGCC
TGGGGGAGAGGCCAGCTGTATGGGGACCGCTTCCAGCATGTCTTCTACTTCAGCTGCAGAGAGCTGGCCCAGTCC
AAGGTGGTGAGTCTCGCTGAGCTCATCGGAAAAGATGGGACAGCCACTCCGGCTCCCATTAGACAGATCCTGTCT
AGGCCAGAGCGGCTGCTCTTCATCCTCGATGGTGTAGATGAGCCAGGATGGGTCTTGCAGGAGCCGAGTTCTGAG
CTCTGTCTGCACTGGAGCCAGCCACAGCCGGCGGATGCACTGCTGGGCAGTTTGCTGGGGAAAACTATACTTCCC
GAGGCATCCTTCCTGATCACGGCTCGGACCACAGCTCTGCAGAACCTCATTCCTTCTTTGGAGCAGGCACGTTGG
GTAGAGGTCCTGGGGTTCTCTGAGTCCAGCAGGAAGGAATATTTCTACAGATATTTCACAGATGAAAGGCAAGCA
ATTAGAGCCTTTAGGTTGGTCAAATCAAACAAAGAGCTCTGGGCCCTGTGTCTTGTGCCCTGGGTGTCCTGGCTG
GCCTGCACTTGCCTGATGCAGCAGATGAAGCGGAAGGAAAAACTCACACTGACTTCCAAGACCACCACAACCCTC
TGTCTACATTACCTTGCCCAGGCTCTCCAAGCTCAGCCATTGGGACCCCAGCTCAGAGACCTCTGCTCTCTGGCT
GCTGAGGGCATCTGGCAAAAAAAGACCCTTTTCAGTCCAGATGACCTCAGGAAGCATGGGTTAGATGGGGCCATC
ATCTCCACCTTCTTGAAGATGGGTATTCTTCAAGAGCACCCCATCCCTCTGAGCTACAGCTTCATTCACCTCTGT
TTCCAAGAGTTCTTTGCAGCAATGTCCTATGTCTTGGAGGATGAGAAGGGGAGAGGTAAACATTCTAATTGCATC
ATAGATTTGGAAAAGACGCTAGAAGCATATGGAATACATGGCCTGTTTGGGGCATCAACCACACGTTTCCTATTG
GGCCTGTTAAGTGATGAGGGGGAGAGAGAGATGGAGAACATCTTTCACTGCCGGCTGTCTCAGGGGAGGAACCTG
ATGCAGTGGGTCCCGTCCCTGCAGCTGCTGCTGCAGCCACACTCTCTGGAGTCCCTCCACTGCTTGTACGAGACT
CGGAACAAAACGTTCCTGACACAAGTGATGGCCCATTTCGAAGAAATGGGCATGTGTGTAGAAACAGACATGGAG
CTCTTAGTGTGCACTTTCTGCATTAAATTCAGCCGCCACGTGAAGAAGCTTCAGCTGATTGAGGGCAGGCAGCAC
AGATCAACATGGAGCCCCACCATGGTAGTCCTGTTCAGGTGGGTCCCAGTCACAGATGCCTATTGGCAGATTCTC
TTCTCCGTCCTCAAGGTCACCAGAAACCTGAAGGAGCTGGACCTAAGTGGAAACTCGCTGAGCCACTCTGCAGTG
AAGAGTCTTTGTAAGACCCTGAGACGCCCTCGCTGCCTCCTGGAGACCCTGCGGTTGGCTGGCTGTGGCCTCACA
GCTGAGGACTGCAAGGACCTTGCCTTTGGGCTGAGAGCCAACCAGACCCTGACCGAGCTGGACCTGAGCTTCAAT
GTGCTCACGGATGCTGGAGCCAAACACCTTTGCCAGAGACTGAGACAGCCGAGCTGCAAGCTACAGCGACTGCAG
CTGGTCAGCTGTGGCCTCACGTCTGACTGCTGCCAGGACCTGGCCTCTGTGCTTAGTGCCAGCCCCAGCCTGAAG
GAGCTAGACCTGCAGCAGAACAACCTGGATGACGTTGGCGTGCGACTGCTCTGTGAGGGGCTCAGGCATCCTGCC
TGCAAACTCATACGCCTGGGGCTGGACCAGACAACTCTGAGTGATGAGATGAGGCAGGAACTGAGGGCCCTGGAG
CAGGAGAAACCTCAGCTGCTCATCTTCAGCAGACGGAAACCAAGTGTGATGACCCCTACTGAGGGCCTGGATACG
GGAGAGATGAGTAATAGCACATCCTCACTCAAGCGGCAGAGACTCGGATCAGAGAGGGCGGCTTCCCATGTTGCT
CAGGCTAATCTCAAACTCCTGGACGTGAGCAAGATCTTCCCAATTGCTGAGATTGCAGAGGAAAGCTCCCCAGAG
GTAGTACCGGTGGAACTCTTGTGCGTGCCTTCTCCTGCCTCTCAAGGGGACCTGCATACGAAGCCTTTGGGGACT
GACGATGACTTCTGGGGCCCCACGGGGCCTGTGGCTACTGAGGTAGTTGACAAAGAAAAGAACTTGTACCGAGTT
CACTTCCCTGTAGCTGGCTCCTACCGCTGGCCCAACACGGGTCTCTGCTTTGTGATGAGAGAAGCGGTGACCGTT
GAGATTGAATTCTGTGTGTGGGACCAGTTCCTGGGTGAGATCAACCCACAGCACAGCTGGATGGTGGCAGGGCCT
CTGCTGGACATCAAGGCTGAGCCTGGAGCTGTGGAAGCTGTGCACCTCCCTCACTTTGTGGCTCTCCAAGGGGGC
CATGTGGACACATCCCTGTTCCAAATGGCCCACTTTAAAGAGGAGGGGATGCTCCTGGAGAAGCCAGCCAGGGTG

FIGURE 691B

GAGCTGCATCACATAGTTCTGGAAAACCCCAGCTTCTCCCCCTTGGGAGTCCTCCTGAAAATGATCCATAATGCC
CTGCGCTTCATTCCCGTCACCTCTGTGGTGTTGCTTTACCACCGCGTCCATCCTGAGGAAGTCACCTTCCACCTC
TACCTGATCCCAAGTGACTGCTCCATTCGGAAGGCCATAGATGATCTAGAAATGAAATTCCAGTTTGTGCGAATC
CACAAGCCACCCCCGCTGACCCCACTTTATATGGGCTGTCGTTACACTGTGTCTGGGTCTGGTTCAGGGATGCTG
GAAATACTCCCCAAGGAACTGGAGCTCTGCTATCGAAGCCCTGGAGAAGACCAGCTGTTCTCGGAGTTCTACGTT
GGCCACTTGGGATCAGGGATCAGGCTGCAAGTGAAAGACAAGAAAGATGAGACTCTGGTGTGGGAGGCCTTGGTG
AAACCAGGAGATCTCATGCCTGCAACTACTCTGATCCCTCCAGCCCGCATAGCCGTACCTTCACCTCTGGATGCC
CCGCAGTTGCTGCACTTTGTGGACCAGTATCGAGAGCAGCTGATAGCCCGAGTGACATCGGTGGAGGTTGTCTTG
GACAAACTGCATGGACAGGTGCTGAGCCAGGAGCAGTACGAGAGGGTGCTGGCTGAGAACACGAGGCCCAGCCAG
ATGCGGAAGCTGTTCAGCTTGAGCCAGTCCTGGGACCGGAAGTGCAAAGATGGACTCTACCAAGCCCTGAAGGAG
ACCCATCCTCACCTCATTATGGAACTCTGGGAGAAGGGCAGCAAAAAGGGACTCCTGCCACTCAGCAGC**TGA**AGT
ATCAACACCAGCCCTTGACCCTTGAGTCCTGGCTTTGGCTGACCCTTCTTTGGGTCTCAGTTTCTTTCTCTGCAA
ACAAGTTGCCATCTGGTTTGCCTTCCAGCACTAAAGTAATGGAACTTTGATGATGCCTTTGCTGGGCATTATGTG
TCCATGCCAGGGATGCCACAGGGGGCCCCAGTCCAGGTGGCCTAACAGCATCTCAGGGAATGTCCATCTGGAGCT
GGCAAGACCCCTGCAGACCTCATAGAGCCTCATCTGGTGGCCACAGCAGCCAAGCCTAGAGCCCTCCGGATCCCA
TCCAGGCGCAAAGAGGAATAGGAGGGACATGGAACCATTTGCCTCTGGCTGTGTCACAGGGTGAGCCCCAAAATT
GGGGTTCAGCGTGGGAGGCCACGTGGATTCTTGGCTTTGTACAGGAAGATCTACAAGAGCAAGCCAACAGAGTAA
AGTGGAAGGAAGTTTATTCAGAAAATAAAGGAGTATCACAGCTCTTTTAGAATTTGTCTAGCAGGCTTTCCAGTT
TTTACCAGAAAACCCCTATAAATTAAAAATTTTTTACTTAAATTTAAGAATTAAAAAAATACAAAAAAGAAAAAA
TGAAAATAAAGGAATAAGAAGTTACCTACTCCAAAAAAAAAAA

FIGURE 692

MAGGAWGRLACYLEFLKKEELKEFQLLLANKAHSRSSSGETPAQPEKTSGMEVASYLVAQYGEQRAWDLALHTWE
QMGLRSLCAQAQEGAGHSPSFPYSPSEPHLGSPSQPTSTAVLMPWIHELPAGCTQGSERRVLRQLPDTSGRRWRE
ISASLLYQALPSSPDHESPSQESPNAPTSTAVLGSWGSPPQPSLAPREQEAPGTQWPLDETSGIYYTEIRERERE
KSEKGRPPWAAVVGTPPQAHTSLQPHHHPWEPSVRESLCSTWPWKNEDFNQKFTQLLLLQRPHPRSQDPLVKRSW
PDYVEENRGHLIEIRDLFGPGLDTQEPRIVILQGAAGIGKSTLARQVKEAWGRGQLYGDRFQHVFYFSCRELAQS
KVVSLAELIGKDGTATPAPIRQILSRPERLLFILDGVDEPGWVLQEPSSELCLHWSQPQPADALLGSLLGKTILP
EASFLITARTTALQNLIPSLEQARWVEVLGFSESSRKEYFYRYFTDERQAIRAFRLVKSNKELWALCLVPWVSWL
ACTCLMQQMKRKEKLTLTSKTTTTLCLHYLAQALQAQPLGPQLRDLCSLAAEGIWQKKTLFSPDDLRKHGLDGAI
ISTFLKMGILQEHPIPLSYSFIHLCFQEFFAAMSYVLEDEKGRGKHSNCIIDLEKTLEAYGIHGLFGASTTRFLL
GLLSDEGEREMENIFHCRLSQGRNLMQWVPSLQLLLQPHSLESLHCLYETRNKTFLTQVMAHFEEMGMCVETDME
LLVCTFCIKFSRHVKKLQLIEGRQHRSTWSPTMVVLFRWVPVTDAYWQILFSVLKVTRNLKELDLSGNSLSHSAV
KSLCKTLRRPRCLLETLRLAGCGLTAEDCKDLAFGLRANQTLTELDLSFNVLTDAGAKHLCQRLRQPSCKLQRLQ
LVSCGLTSDCCQDLASVLSASPSLKELDLQQNNLDDVGVRLLCEGLRHPACKLIRLGLDQTTLSDEMRQELRALE
QEKPQLLIFSRRKPSVMTPTEGLDTGEMSNSTSSLKRQRLGSERAASHVAQANLKLLDVSKIFPIAEIAEESSPE
VVPVELLCVPSPASQGDLHTKPLGTDDDFWGPTGPVATEVVDKEKNLYRVHFPVAGSYRWPNTGLCFVMREAVTV
EIEFCVWDQFLGEINPQHSWMVAGPLLDIKAEPGAVEAVHLPHFVALQGGHVDTSLFQMAHFKEEGMLLEKPARV
ELHHIVLENPSFSPLGVLLKMIHNALRFIPVTSVVLLYHRVHPEEVTFHLYLIPSDCSIRKAIDDLEMKFQFVRI
HKPPPLTPLYMGCRYTVSGSGSGMLEILPKELELCYRSPGEDQLFSEFYVGHLGSGIRLQVKDKKDETLVWEALV
KPGDLMPATTLIPPARIAVPSPLDAPQLLHFVDQYREQLIARVTSVEVVLDKLHGQVLSQEQYERVLAENTRPSQ
MRKLFSLSQSWDRKCKDGLYQALKETHPHLIMELWEKGSKKGLLPLSS

FIGURE 693

CGCGGCGGCGCGGAGCTCGGGCGGCCGTGGAGGAACTCAGCCTCGGCCGCAGGAGGCGCCGGGAGCGGAGCCGCC
GGGAGTCGCGCAACAGGTTTCCTTCTCCATCCGTGCGCCCACAGGGGACGCGCGCCCTGCCGGGAGAGGGGCTTC
TCGGTTCGCACTCTCGCTCCCAGTCCAGGCAAA**ATG**AAAGACCGGCTAGCAGAACTTCTGGACTTGTCCAAGCAA
TATGACCAGCAGTTCCCAGACGGGGACGATGAGTTTGACTCGCCCCACGAGGACATCGTGTTCGAGACGGACCAC
ATCCTGGAGTCCCTGTACCGAGACATCCGGGACATTCAGGATGAAAACCAGCTGCTGGTGGCCGACGTGAAGCGG
CTGGGAAAGCAGAACGCCCGCTTCCTCACGTCCATGCGGCGCCTCAGCAGCATCAAGCGCGACACCAACTCCATC
GCCAAGGCCTTCAGGGCCCGGGGCGAGGTCATCCACTGCAAGCTGCGCGCCATGAAGGAGCTGAGCGAGGCGGCT
GAGGCCCAGCACGGCCCGCACTCGGCAGTGGCGCGCATTTCGCGGGCGCAGTACAACGCGCTCACCCTCACCTTC
CAGCGCGCCATGCACGACTACAACCAGGCCGAGATGAAGCAGCGCGACAACTGCAAGATCCGCATCCAGCGCCAG
CTGGAGATCATGGGCAAGGAAGTCTCGGGCGACCAGATCGAGGACATGTTCGAGCAGGGTAAGTGGGACGTGTTT
TCCGAGAACTTGCTGGCCGACGTGAAGGGCCGCGGGCCGCCCACAACGAGATCGAGAGCCGCCACCGCGAACTGC
TGCGCCTGGAGAGCCGCCATCCGCGACGTACACGAGCTCTTCTTGCAGATGGCGGTGCTGGTGGAGAAGCAGGCC
GACACCCTGAACGTCATCGAGCTCAACGTACAAAAGACGGTCGACTACACCGGCCAGGCCAAGGCGCAGGTGCGG
AAGGCCGTGCAGTACGAGGAGAAGAACCCCTGCCGGACCCTCTGCTGCTTCTGCTGTCCCTGCCTCAAG**TAG**CAG
GCCGGCCCGGGCCGCCACCGCCCATCCCAGACCATGGAGCGCGCTGGGAAGGACGCACCAAAGCCGGGAGCTCTG
CCCTGCAGGGAGTTGCCCCAACCCTTTCCGGAACTCAGTCTTTAGAAAAGAAACGCCAGGTTCAAGAATTGCAAA
CCAGCCTGTGCTTGGAAAGATGGTTAGTTGATACCGTCCGATGATTCTTCAGTAAAGATAGATTCCCACCTCGTG
CCGAA

FIGURE 694

MKDRLAELLDLSKQYDQQFPDGDDEFDSPHEDIVFETDHILESLYRDIRDIQDENQLLVADVKRLGKQNARFLTS
MRRLSSIKRDTNSIAKAFRARGEVIHCKLRAMKELSEAAEAQHGPHSAVARISRAQYNALTLTFQRAMHDYNQAE
MKQRDNCKIRIQRQLEIMGKEVSGDQIEDMFEQGKWDVFSENLLADVKGRGPPTTRSRAATANCCAWRAAIRDVH
ELFLQMAVLVEKQADTLNVIELNVQKTVDYTGQAKAQVRKAVQYEEKNPCRTLCCFCCPCLK

FIGURE 695

AGTTCCCCGACATCAAGTCACGCATTGCCAAGCGGGGGCGCAAGCTGGTGGACTACGACAGTGCCCGGCACCACT
ACGAGTCCCTTCAAACTGCCAAAAAGAAGGATGAAGCCAAAATTGCCAAGCCTGTCTCGCTGCTTGAGAAAGCCG
CCCCCCAGTGGTGCCAAGGCAAACTGCAGGCTCATCTCGTAGCTCAAACTAACCTGCTCCGAAATCAGGCCGAGG
AGGAGCTCATCAAAGCCCAGAAGGTGTTTGAGGAGATGAATGTGGATCTGCAGGAGGAGCTGCCGTCCCTGTGGA
ACAGCCGCGTAGGTTTCTATGTCAACACGTTCCAGAGCATCGCGGGCCTGGAGGAAAACTTCCACAAGGAGATGA
GCAAGCTCAACCAGAACCTCAATGATGTGCTGGTCGGCCTGGAGAAGCAACACGGGAGCAACACCTTCACGGTCA
AGGCCCAGCCCAGTGACAACGCGCCTGCAAAAGGGAACAAGAGCCCTTCGCCTCCAGATGGCTCCCCTGCCGCCA
CCCCCGAGATCAGAGTCAACCACGAGCCAGAGCCGGCCGGCGGGGCCACGCCCGGGGCCACCCTCCCCAAGTCCC
CATCTCAGCTCCGGAAAGGCCCACCAGTCCCTCCGCCTCCCAAACACACCCCGTCCAAGGAAGTCAAGCAGGAGC
AGATCCTCAGCCTGTTTGAGGACACGTTTGTCCCTGAGATCAGCGTGACCACCCCCTCCCAGTTTGAGGCCCCGG
GGCCTTTCTCGGAGCAGGCCAGTCTGCTGGACCTGGACTTTGACCCCCTCCCGCCCGTGACGAGCCCTGTGAAGG
CACCCACGCCCTCTGGTCAGTCAATTCCATGGGACCTCTGGGAGCCCACAGAGAGTCCAGCCGGCAGCCTGCCTT
CCGGGGAGCCCAGCGCTGCCGAGGGCACCTTTGCTGTGTCCTGGCCCAGCCAGACGGCCGAGCCGGGGCCTGCCC
AACCAGCAGAGGCCTCGGAGGTGGCGGGTGGGACCCAACCTGCGGCTGGAGCCCAGGAGCCAGGGGAGACGGCGG
CAAGTGAAGCAGCCTCCAGCTCTCTTCCTGCTGTCGTGGTGGAGACCTTCCCAGCAACTGTGAATGGCACCGTGG
AGGGCGGCAGTGGGGCCGGGCGCTTGGACCTGCCCCCAGGTTTCATGTTCAAGGTACAGGCCCAGCACGACTACA
CGGCCACTGACACAGACGAGCTGCAGCTCAAGGCTGGTGATGTGGTGCTGGTGATCCCCTTCCAGAACCCTGAAG
AGCAGGATGAAGGCTGGCTCATGGGCGTGAAGGAGAGCGACTGGAACCAGCACAAGGAGCTGGAGAAGTGCCGTG
GCGTCTTCCCCGAGAACTTCACTGAGAGGGTCCCATGACGGCGGGGCCCAGGCAGCCTCCGGGCGTGTGAAGAAC
ACCTCCTCCCGAAAAATGTGTGGTTCTTTTTTTTGTTTTGTTTTCGTTTTTCATCTTTTGAAGAGCAAAGGGAAA
TCAAGAGGAGACCCCCAGGCAGAGGGGCGTTCTCCCAAAGATTAGGTCGTTTTCCAAAGAGCCGCGTCCCGGCAA
GTCCGGCGGAATTCACCAGTGTTCCTGAAGCTGCTGTGTCCTCTAGTTGAGTTTCTGGCGCCCCTGCCTGTGCCC
GCATGTGTGCCTGGCCGCAGGGCGGGGCTGGGGGCTGCCGAGCCACCATGCTTGCCTGAAGCTTCGGCCGCGCCA
CCCGGGCAAGGGTCCTCTTTTCCTGGCAGCTGCTGTGGGTGGGGCCCAGACACCAGCCTAGCCTGGCTCTGCCCC
GCAGACGGTCTGTGTGCTGTTTGAAAATAAATCTTAGTGTTCAAAACAAAATGAAACAAAAAAAAATGAAAAAA
AAAAAAAAAAAAAAAAA

FIGURE 696

GCTGGAGG**ATG**TGGCTGCAGAGCCTGCTGCTCTTGGGCACTGTGGCCTGCAGCATCTCTGCACCCGCCCGCTCGC
CCAGCCCCAGCACGCAGCCCTGGGAGCATGTGAATGCCATCCAGGAGGCCCGGCGTCTCCTGAACCTGAGTAGAG
ACACTGCTGCTGAGATGAATGAAACAGTAGAAGTCATCTCAGAAATGTTTGACCTCCAGGAGCCGACCTGCCTAC
AGACCCGCCTGGAGCTGTACAAGCAGGGCCTGCGGGGCAGCCTCACCAAGCTCAAGGGCCCCTTGACCATGATGG
CCAGCCACTACAAGCAGCACTGCCCTCCAACCCCGGAAACTTCCTGTGCAACCCAGACTATCACCTTTGAAAGTT
TCAAAGAGAACCTGAAGGACTTTCTGCTTGTCATCCCCTTTGACTGCTGGGAGCCAGTCCAGGAG**TGA**GACCGGC
CAGATGAGGCTGGCCAAGCCGGGGAGCTGCTCTCTCATGAAACAAGAGCTAGAAACTCAGGATGGTCATCTTGGA
GGGACCAAGGGGTGGGCCACAGCCATGGTGGGAGTGGCCTGGACCTGCCCTGGGCCACACTGACCCTGATACAGG
CATGGCAGAAGAATGGGAATATTTTATACTGACAGAAATCAGTAATATTTATATATTTATATTTTTAAAATATTT
ATTTATTTATTTATTTAAGTTCATATTCCATATTTATTCAAGATGTTTTACCGTAATAATTATTATTAAAAATAT
GCTTCT

FIGURE 697

MWLQSLLLLGTVACSISAPARSPSPSTQPWEHVNAIQEARRLLNLSRDTAAEMNETVEVISEMFDLQEPTCLQTR
LELYKQGLRGSLTKLKGPLTMMASHYKQHCPPTPETSCATQTITFESFKENLKDFLLVIPFDCWEPVQE

FIGURE 698

AGTTACGTTCGGGGCGTGGCCGGGAGCACGTTGGCTCCGCCCCCTGGCGGCTGCCTCAGCGGCGGCGGCGGCGCA
GGCTCAGAGCAGACCCCGCCCGGCGAGGAGGAGGGAGGGCCGCCAGTGTCGAC**ATG**CTGCTGGAGGAGGTTCGCG
CCGGCGACCGGCTGAGTGGGGCGGCGGCCCGGGGCGACGTGCAGGAGGTGCGCCGCCTTCTGCACCGCGAGCTGG
TGCATCCCGACGCCCTCAACCGCTTCGGCAAGACGGCGCTGCAGGTCATGATGTTTGGCAGCACCGCCATCGCCC
TGGAGCTGCTGAAGCAAGGTGCCAGCCCCAATGTCCAGGACACCTCCGGTACCAGTCCAGTCCATGACGCAGCCC
GCACTGGATTCCTGGACACCCTGAAGGTCCTAGTGGAGCACGGGGCTGATGTCAACGTGCCTGATGGCACCGGGG
CACTTCCAATCCATCTGGCAGTTCAAGAGGGTCACACTGCTGTGGTCAGCTTTCTGGCAGCTGAATCTGATCTCC
ATCGCAGGGACGCCAGGGGTCTCACACCCTTGGAGCTGGCACTGCAGAGAGGGGCTCAGGACCTCGTGGACATCC
TGCAGGGCCACATGGTGGCCCCGCTG**TGA**TCTGGGGTCACCCTCTCCAGCAAGAGAACCCCGTGGGGTTATGTAT
CAGAAGAGAGGGGAAGAAACACTTTCTCTTCTTGTTTCTCCTGCCCACTGCTGCAGTAGGGGAGGAGCACAGTTT
GTGGCTTATAGGTGTTGGTTTTGGGGGTGTGAGTGTTTGGGGGACGTTTCTCATTTGTTTTTCTCACTCCTTTTG
GTGTGTTGGACAGAGAAGGGCTCCTGCAGGCCACAGCCACCTAAACGGTTCAGTTTCTTCTGCGCCTCAGGCTGC
TGGGGCCTCAGACGAGACCCAAGGGCAGAGCATTTAAGAGTGAAGTCATGACCTCCAGGGAGCCTAGAAGCTGGT
GGCCTTGGCCGGCTGTGCTCAGAGACCTGAAGTGTGCACGTTGCTTCAGGCATGGGGGGTGGGGGGAGCGTCCCA
AATCAATAAGAAGGTAGAATGAGTTATGAGTTATTCATATTCTGTTGGAAGCTTGTTTTCCAGTCTCTTGTACAG
CGTTTTAAAAGAAATGGATTCTATTTATTATGCTTTATTGGAAAAAATGTTGTAATAATTTAATGTTTTTACCCA
TTAAATTAAGACTTGTGCATGATCAAAAAAAAAAAAAAAAAA

FIGURE 699

MLLEEVRAGDRLSGAAARGDVQEVRRLLHRELVHPDALNRFGKTALQVMMFGSTAIALELLKQGASPNVQDTSGT
SPVHDAARTGFLDTLKVLVEHGADVNVPDGTGALPIHLAVQEGHTAVVSFLAAESDLHRRDARGLTPLELALQRG
AQDLVDILQGHMVAPL

FIGURE 700

GGGGAGATCTTAGCTGAAG**ATG**ACTGACAGTGTTATTTATTCCATGTTAGAGTTGCCTACGGCAACCCAAGCCCA
GAATGACTATGGACCACAGCAAAAATCTTCCTCTTCCAGGCCTTCTTGTTCTTGCCTTGTGGCAATAGCTTTGGG
GCTTCTGACTGCAGTTCTTCTGAGTGTGCTGCTATACCAGTGGATCCTGTGCCAGGGCTCCAACTACTCCACTTG
TGCCAGCTGTCCTAGCTGCCCAGACCGCTGGATGAAATATGGTAACCATTGTTATTATTTCTCAGTGGAGGAAAA
GGACTGGAATTCTAGTCTGGAATTCTGCCTAGCCAGAGACTCACACCTCCTTGTGATAACGGACAATCAGGAAAT
GAGCCTGCTCCAAGTTTTCCTCAGTGAGGCCTTTTGCTGGATTGGTCTGAGGAACAATTCTGGCTGGAGGTGGGA
AGATGGATCACCTCTAAACTTCTCAAGGATTTCTTCTAATAGCTTTGTGCAGACATGCGGTGCCATCAACAAAAA
TGGTCTTCAAGCCTCAAGCTGTGAAGTTCCTTTACACTGGGTGTGTAAGAAGTGTCCCTTTGCAGATCAAGCTTT
ATTC**TGA**AGAATAAACCTAGCTGGCATGCTGGTGTGTACCTGTAGTCCTAGCTATTTGGGAAGCTGAGGTGGGAG
GGTCGCTTGAGCCCAGGAGTTTGAGGCTGCAGTGAGCTATGATTGTGCCACTGTACTCCAGCCTGGGAGATAGAG
CAAGACTCCATCTCTAAAAAAAAAAAAAAAATGCTAATGTGAGAATATAAATTGTGGGAAATGAGTGAGGGCAAGG
TGGTACTTCCTCCTTCTGAGCTCTTCACACGTAATGCAAAAACCCGGTCTTAACTGATTTTGTTTTTTTTCTGAG
TATGCATATATGTGGTTGAATGAACCAATGTGTGATTGTATCTTTTCCATTATGTGACTGTTTGACCTGCATATT
AATTTCAAGATAGCAGTCAATTCGATAAGGCATTTTCATAGAGGAAAGTTTACAGAAACAGTTTATGTGGTTGGA
TCACCAAATTATCTTAGGTACTAAGGCCTCAAAAATAAGAAAAACTTTATTATTTCTCCTCAGTAGAGTTTGGAC
ATACATAAGGAGAGAAGGTACAGTGATGAAGGAGACCATAATTCTGTAGTGTTGATGATCCTGGATTATAATCTT
TTTCTCTTTATCTTTCATAGTTTTTTTAAAAACATGGACTGTATCTTATCTACCACTATATCCCAAATACCTAAG
ATAGTGCTTACGTTCAGTGACTATTAAATAAATAAATGGATGAATTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 701

MTDSVIYSMLELPTATQAQNDYGPQQKSSSSRPSCSCLVAIALGLLTAVLLSVLLYQWILCQGSNYSTCASCPSC
PDRWMKYGNHCYYFSVEEKDWNSSLEFCLARDSHLLVITDNQEMSLLQVFLSEAFCWIGLRNNSGWRWEDGSPLN
FSRISSNSFVQTCGAINKNGLQASSCEVPLHWVCKKCPFADQALF

FIGURE 702

TGAAGATCAGCTATTAGAAGAGAAAGATCAGTTAAGTCCTTTGGACCTGATCAGCTTGATACAAGAACTACTGAT
TTCAACTTCTTTGGCTTAATTCTCTCGGAAACG**ATG**AAATATACAAGTTATATCTTGGCTTTTCAGCTCTGCATC
GTTTTGGGTTCTCTTGGCTGTTACTGCCAGGACCCATATGTAAAAGAAGCAGAAAACCTTAAGAAATATTTTAAT
GCAGGTCATTCAGATGTAGCGGATAATGGAACTCTTTTCTTAGGCATTTTGAAGAATTGGAAAGAGGAGAGTGAC
AGAAAAATAATGCAGAGCCAAATTGTCTCCTTTTACTTCAAACTTTTTAAAAACTTTAAAGATGACCAGAGCATC
CAAAAGAGTGTGGAGACCATCAAGGAAGACATGAATGTCAAGTTTTTCAATAGCAACAAAAAGAAACGAGATGAC
TTCGAAAAGCTGACTAATTATTCGGTAACTGACTTGAATGTCCAACGCAAAGCAATACATGAACTCATCCAAGTG
ATGGCTGAACTGTCGCCAGCAGCTAAAACAGGGAAGCGAAAAAGGAGTCAGATGCTGTTTCAAGGTCGAAGAGCA
TCCCAG**TAA**TGGTTGTCCTGCCTGCAATATTTGAATTTTAAATCTAAATCTATTTATTAATATTTAACATTATTT
ATATGGGGAATATATTTTTAGACTCATCAATCAAATAAGTATTTATAATAGCAACTTTTGTGTAATGAAAATGAA
TATCTATTAATATATGTATTATTTATAATTCCTATATCCTGTGACTGTCTCACTTAATCCTTTGTTTTCTGACTA
ATTAGGCAAGGCTATGTGATTACAAGGCTTTATCTCAGGGGCCAACTAGGCAGCCAACCTAAGCAAGATCCCATG
GGTTGTGTGTTTATTTCACTTGATGATACAATGAACACTTATAAGTGAAGTGATACTATCCAGTTACTGCCGGTT
TGAAAATATGCCTGCAATCTGAGCCAGTGCTTTAATGGCATGTCAGACAGAACTTGAATGTGTCAGGTGACCCTG
ATGAAAACATAGCATCTCAGGAGATTTCATGCCTGGTGCTTCCAAATATTGTTGACAACTGTGACTGTACCCAAA
TGGAAAGTAACTCATTTGTTAAAATTATCAATATCTAATATATATGAATAAAGTGTAAGTTCACAACT

FIGURE 703

MKYTSYILAFQLCIVLGSLGCYCQDPYVKEAENLKKYFNAGHSDVADNGTLFLGILKNWKEESDRKIMQSQIVSF
YFKLFKNFKDDQSIQKSVETIKEDMNVKFFNSNKKKRDDFEKLTNYSVTDLNVQRKAIHELIQVMAELSPAAKTG
KRKRSQMLFQGRRASQ

FIGURE 704

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GTTTGAGCAGCATTGTTAGAGCCTGTGGAAAACACTTTACAACTGTGTAACTGTCTTCATCTTTACAGAGGAATA
GTCTACAAAGGAAGACTTGTAACCTGGAGAAGAGACCTGTCATTTACTCCATCCTTTATAGTGATGCTACAGGAC
GAAGAGGAATGGATAAAAACATTGGCGAGCAACTCAATAAAGCGTATGAAGCCTTCCGGCAGGCATGCATGGATA
GAGATTCTGCAGTAAAAGAATTACAGCAAAAGACTGAGAACTATGAGCAGAGAATACGTGAACAACAGGAACAGC
TGTCACTTCAACAGACTATTATTGACAAGCTAAAATCTCAGTTACTTCTTGTGAATTCCACTCAAGATAACAATT
ATGGCTGTGTTCCTCTGCTTGAAGACAGTGAAACAAGAAAGAATAATTTGACTCTTGATCAGCCACAAGATAAAG
TGATTTCAGGAATAGCAAGAGAAAAACTACCAAAGGTAAGAAGACAAGAGGTTTCTTCTCCTAGAAAAGAAACTT
CAGCAAGGAGTCTTGGCAGTCCTTTGCTCCATGAAAGGGGTAATATAGAGAAGACTTTCTGGGATCTGAAAGAAG
AATTTCATAAAATATGCATGCTAGCAAAAGCACAGAAAGACCACTTAAGCAAACTTAATATACCAGACACTGCAA
CTGAAACACAGTGCTCTGTGCCTATACAGTGTACGGATAAAACAGATAAACAAGAAGCGCTGTTTAAGCCTCAGG
CTAAAGATGATATAAATAGAGGTGCACCATCCATCACATCTGTCACACCAAGAGGACTGTGCAGAGATGAGGAAG
ACACCTCTTTTGAATCACTTTCTAAATTCAATGTCAAGTTTCCACCTATGGACAATGACTCAACTTTCTTACATA
GCACTCCAGAGAGACCCGGCATCCTTAGTCCTGCCACGTCTGAGGCAGTGTGCCAAGAGAAATTTAATATGGAGT
TCAGAGACAACCCAGGGAACTTTGTTAAAACAGAAGAAACTTTATTTGAAATTCAGGGAATTGACCCCATAGCTT
CAGCTATACAAAACCTTAAAACAACTGACAAAACAAAGCCCTCAAATCTCGTAAACACTTGTATCAGGACAACTC
TGGATAGAGCTGCGTGTTTGCCACCTGGAGACCATAATGCATTATATGTAAATAGCTTCCCACTTCTGGACCCAT
CTGATGCACCTTTTCCCTCACTCGATTCCCCGGGAAAAGCAATCCGAGGACCACAGCAGCCCATTTGGAAGCCCT
TTCCTAATCAAGACAGTGACTCGGTGGTACTAAGTGGCACAGACTCAGAACTGCATATACCTCGAGTATGTGAAT
TCTGTCAAGCAGTTTTCCCACCATCCATTACATCCAGGGGGGATTTCCTTCGGCATCTTAATTCACACTTCAATG
GAGAGACTTAAGACACATTTGAAAACAGACATATCAAGTTCTATGTGATGATTTTGGGTTTTTAATACTATAAAT
ACTTGATTGTAAACTAAATTCAAGATCATTTATAGGAAAATCTAGTTTCACAGCTATTTGAATTTTTTTCTGGAT
TTACTATATAACTCTTATTTTTAAAAGATCATTCTGTTCTTTCAAGGAGAAATAAGCCTAAAAGAAGAAAAACA
AAAAAAATTCTGTATAAAACTGTAATCCTTTGTATTCATGTTACAGTGCTATTACTATAATTCAAAATTATGTA
TGTGACTTAGAGTTATATAATCATAATTTATGTTTATTTCAAATATCTAAGTTTATTGCTTGGATTTCTAGTGAG
AGCTGTTGAATTTGGTGATGTCAAATGTTTCTAGGGTTTTTTTAGTTTGTTTTTATTGAAAAATTTAATTATTTA
TGCTATAGGTGATATTCTCTTTGAATAAACCTATAATAGAAAATAGCAGACAACATAAACATCTTTGTAAATATC
AAACCTAATACATTTCTTGTCCAGTGATAAAACAACTGGTAGAATTATTTAAACACTTTAGATTTTTAAATAATA
TACATGGCTTTAATTTTTACTGTGTGTATAGCTACATGATGAAATTAATTAAATATTAAGAGGT
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FIGURE 705

MDKNIGEQLNKAYEAFRQACMDRDSAVKELQQKTENYEQRIREQQEQLSLQQTIIDKLKSQLLLVNSTQDNNYGC
VPLLEDSETRKNNLTLDQPQDKVISGIAREKLPKVDIASAESSI

GTCTACACCAGCGGTGTCGCTGCCCGAAAGTGAGAGAAGGCTGATATTGCTAGCTGGAATCCAGGCCTGGGTGCT
GCATGGTGGCGCCCCTCCCCGTGACCACCGCTGCGTTTTCTCGGGCTTTCTCTGAGGAGCTGCTCTTGTGCTGTT
TGGCCCCTGCCTACTCGGAATGGAACAAAGCATCGAACAAACAACTGAGATCCTGTTGTGCCTATCACCTGTTGA
AGTTGCCAGTCTTAAGGAAGGAATCAATTTCTTTCGCAATAAGAGCACTGGCAAAGACTACGTCTTGTACAAGAA
TAAGAGCCGACTGAGGGCATGCAAGAATATGTGCAAGCACCAAGGAGGCCTGTTCATAAAAGATATCGAGGATTT
AGCCGGAAGTTGTTGAA**ATG**GATGAAAACAACGGACTTTTGCTTTTAGAACTGAATCCTCCTAACCCTTGGGACT
TACAGCCCAGATCTCCTGAAGAGTTGGCTTTTGGAGAAGTACAGATAACATATCTCACTCATGCCTGCATGGACC
TCAAGTTAGGAGACAAGAGAATGGTGTTTGACCCTTGGTTAATCGGTCCTGCTTTTGCCCGTGGATGGTGGTTGC
TCCATGAGCCTCCATCTGATTGGCTGGAGAGGCTGTGCCAGGCAGACCTCATTTACATCAGTCATCTGCACTCAG
ACCACCTGAGTTACCCCACACTGAAAAAGCTTGCTGGGAGAAGACCAGATATTCCCATTTATGTTGGAAACACAG
AAAGGCCTGTATTTTGGAATCTGAATCAGAGCGGTGTCCAGTTGACTAATATCAATGTCGTGCCATTTGGAATAT
GGCAGCAGGTGGACAAAAATCTTCGATTCATGATCTTGATGGACGGTGTTCATCCTGAGATGGACACTTGCATTA
TTGTGGAGTACAAAGGTCATAAAATACTCAATATAGTAGACTGCACCAGACCCAATGGGGGAAGGCTGCCTATGA
AGGTTGCTCTAATGATGAGTGATTTTGCTGGAGGAGCATCAGGCTTTCCAATGACTTTCAGTGGTGGAAAATTTA
CGGAGGAATGGAAAGCCCAATTCATTAAAACAGAAAGGAAGAAGCTCCTGAACTACAAGGCTCGGCTGGTGAAGA
ACCTGCAACCCCGAATTTATTGTCCCTTTGCTGGGTATTTTGTGGAATCTCACCCATCAGACAAGTACATCAAGG
AAACAAACACCAAAAATGACCCAAATGAACTCAACAATCTTATCAAGAAAAACTCTGATGTGATAACATGGACCC
CTCGACCGGGAGCCACCCTTGATCTGGGAAGAATGCTGAAGGATCGAACAGACAGCAAGGGCATCATAGAGCCTC
CAGAGGGGACAAAAATTTACAAGGATTCCTGGGATTTTGAACCTTATTTGGAAATCTTGAATGCTGCTCTAGGAG
ATGAAATATTTCTTCACTCATCCTGGATAAAAGAATACTTCACTTGGGCTGGATTTAAAGATTACAACCTTGTGG
TCAGGATGATTGAGACAGATGAGGACTTCAATCCTTTTCCTGGAGGATATGACTATTTGGTTGACTTTTTAGATT
TATCCTTCCCAAAAGAAAGACCACAACGAGAACATCCCTATGAGGAAATCCATAGCCGGGTGGATGTCATCAGAC
ACGTGGTGAAGAATGGTCTACTCTGGGATGAGTTGTATATAGGATTCCAAACACGGCTCCAGCGGGATCCTGACA
TATACCATCACCTGTTTTGGAATCATTTTCAAATAAAACTCCCCCTCACACCACCCAACTGGAAGTCATTCCTGA
TGTGCTGTGAGCAGAATGGGCͅTGCGATTTTGCAAGAATGCAAAACCACA**TGA**AAATTTCAAGAATTCACTGATC
TGATGCAAAATAAAAATTTATCATTACATCTTGAACCCAGGAAGCTTACAGCAAAGAGACTATGCTTATGACGT
CAGCAATAGATAATTCCACGTTGCCTTTGTGATTTGTATATATAGCTTACATTTGTGGATCACTACATAGCCAGA
TTCAAAAATATTTTACTTGTTCCATCCACAGTTCTCTACAGAAAGAACCAATGAACCCAATAGGAACAAATTCTC
TGTGGAAAACAAAGCATAGCTGTAGTAGATACGAATCCAATCACAGAGGAAACAGGAAGAGAAAAACATCCAAGA
CTACAGTGAAAACTGGAAATGGTCTGTTTTCGTGATATTCGTATGATTAAGATGCAAATTTTTTCTTAGGAAAAT
GTGATTGTTAACTAGCATTCTGTTTTACATGTTGACATTTCTAACACACACACCACTGATTTGAACTTCAAAATT
TATTTTCTGATTATATATGCTAGGTCTGATTCTGAAGATACAAGAATTCAATGGTGGAATTTGTCTCCTGAAATT
TCTAGATTCATAATTAGAAGTGTTTATTACCAACTTCTCACTTAGATTAACATCAGTGATGTTTGATTATTCTGG
TTAACCGCTCACATGCATAACAATAATGCTAGAAATTCAGGAATTATAATTTTGTGATTTATACTGTGTGGTAAA
TTATTCAGTTCTCACTGCAAATAAATATAATGTATATCAATGTAATGTAGGTCAGAATGTCTATGGTGAGCAAAT
AAAAGATTATTTTAAAATATGAAAAAAAAAAAAAAAAA

FIGURE 707

MDENNGLLLLELNPPNPWDLQPRSPEELAFGEVQITYLTHACMDLKLGDKRMVFDPWLIGPAFARGWWLLHEPPS
DWLERLCQADLIYISHLHSDHLSYPTLKKLAGRRPDIPIYVGNTERPVFWNLNQSGVQLTNINVVPFGIWQQVDK
NLRFMILMDGVHPEMDTCIIVEYKGHKILNIVDCTRPNGGRLPMKVALMMSDFAGGASGFPMTFSGGKFTEEWKA
QFIKTERKKLLNYKARLVKNLQPRIYCPFAGYFVESHPSDKYIKETNTKNDPNELNNLIKKNSDVITWTPRPGAT
LDLGRMLKDRTDSKGIIEPPEGTKIYKDSWDFEPYLEILNAALGDEIFLHSSWIKEYFTWAGFKDYNLVVRMIET
DEDFNPFPGGYDYLVDFLDLSFPKERPQREHPYEEIHSRVDVIRHVVKNGLLWDELYIGFQTRLQRDPDIYHHLF
WNHFQIKLPLTPPNWKSFLMCCEQNGPAILQECKTT

FIGURE 708

CCGGGGGGCATGAGGGTCCGAGACTTGTTCTTCTGTCCCTTCCAAGACCCGGCGACAGGAGGCATGAGGGGCCCC
CGGCCGAA**ATG**ACAGTGCTGGCGCCAGCCTGGAGCCCAACAACCTATCTCCTCCTGCTGCTGCTGCTGAGCTCGG
GACTCAGTGGGACCCAGGACTGCTCCTTCCAACACAGCCCCATCTCCTCCGACTTCGCTGTCAAAATCCGTGAGC
TGTCTGACTACCTGCTTCAAGATTACCCAGTCACCGTGGCCTCCAACCTGCAGGACGAGGAGCTCTGCGGGGGCC
TCTGGCGGCTGGTCCTGGCACAGCGCTGGATGGAGCGGCTCAAGACTGTCGCTGGGTCCAAGATGCAAGGCTTGC
TGGAGCGCGTGAACACGGAGATACACTTTGTCACCAAATGTGCCTTTCAGCCCCCCCCCAGCTGTCTTCGCTTCG
TCCAGACCAACATCTCCCGCCTCCTGCAGGAGACCTCCGAGCAGCTGGTGGCGCTGAAGCCCTGGATCACTCGCC
AGAACTTCTCCCGGTGCCTGGAGCTGCAGTGTCAGCCCGACTCCTCAACCCTGCCACCCCCATGGAGTCCCCGGC
CCCTGGAGGCCACAGCCCCGACAGCCCCGCAGCCCCCTCTGCTCCTCCTACTGCTGCTGCCCGTGGGCCTCCTGC
TGCTGGCCGCTGCCTGGTGCCTGCACTGGCAGAGGACGCGGCGGAGGACACCCCGCCCTGGGGAGCAGGTGCCCC
CCGTCCCCAGTCCCCAGGACCTGCTGCTTGTGGAGCAC**TGA**CCTGGCCAAGGCCTCATCCTGCGGAGCCTTAAAC
AACGCAGTGAGACAGACATCTATCATCCCATTTTACAGGGGAGGATACTGAGGCACACAGAGGGGAGTCACCAGC
CAGAGGATGTATAGCCTGGACACAGAGGAAGTTGGCTAGAGGCCGGTCCCTTCCTTGGGCCCCTCTCATTCCCTC
CCCAGAATGGAGGCAACGCCAGAATCCAGCACCGGCCCCATTTACCCAACTCTGAACAAAGCCCTTGCCCCCATG
AAATTGTTTATAAATCATCCTTTTCTCCCA

FIGURE 709

MTVLAPAWSPTTYLLLLLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSDYLLQDYPVTVASNLQDEELCGGLWR
LVLAQRWMERLKTVAGSKMQGLLERVNTEIHFVTKCAFQPPPSCLRFVQTNISRLLQETSEQLVALKPWITRQNF
SRCLELQCQPDSSTLPPPWSPRPLEATAPTAPQPPLLLLLLLPVGLLLLAAAWCLHWQRTRRRTPRPGEQVPPVP
SPQDLLLVEH

FIGURE 710

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GCGCCTGGCCTATTGAAGGTTTTTAATCTTCAGAGTTTCGACTTTATCAACAACACTTAGAAGCCACCAAAGAAT
TGCAGATGGATCCTAATAGAATATCAGAAGATGGCACTCACTGCATTTATAGAATTTTGAGACTCCATGAAAATG
CAGATTTTCAAGACACAACTCTGGAGAGTCAAGATACAAAATTAATACCTGATTCATGTAGGAGAATTAAACAGG
CCTTTCAAGGAGCTGTGCAAAAGGAATTACAACATATCGTTGGATCACAGCACATCAGAGCAGAGAAAGCGATGG
TGGATGGCTCATGGTTAGATCTGGCCAAGAGGAGCAAGCTTGAAGCTCAGCCTTTTGCTCATCTCACTATTAATG
CCACCGACATCCCATCTGGTTCCCATAAAGTGAGTCTGTCCTCTTGGTACCATGATCGGGGTTGGGCCAAGATCT
CCAACATGACTTTTAGCAATGGAAAACTAATAGTTAATCAGGATGGCTTTTATTACCTGTATGCCAACATTTGCT
TTCGACATCATGAAACTTCAGGAGACCTAGCTACAGAGTATCTTCAACTAATGGTGTACGTCACTAAAACCAGCA
TCAAAATCCCAAGTTCTCATACCCTGATGAAAGGAGGAAGCACCAAGTATTGGTCAGGGAATTCTGAATTCCATT
TTTATTCCATAAACGTTGGTGGATTTTTTAAGTTACGGTCTGGAGAGGAAATCAGCATCGAGGTCTCCAACCCCT
CCTTACTGGATCCGGATCAGGATGCAACATACTTTGGGGCTTTTAAAGTTCGAGATATAGATTGAGCCCCAGTTT
TTGGAGTGTTATGTATTTCCTGGATGTTTGGAAACATTTTTTAAAACAAGCCAAGAAAGATGTATATAGGTGTGT
GAGACTACTAAGAGGCATGGCCCCAACGGTACACGACTCAGTATCCATGCTCTTGACCTTGTAGAGAACACGCGT
ATTTACAGCCAGTGGGAGATGTTAGACTCATGGTGTGTTACACAATGGTTTTTAAATTTTGTAATGAATTCCTAG
AATTAAACCAGATTGGAGCAATTACGGGTTGACCTTATGAGAAACTGCATGTGGGCTATGGGAGGGGTTGGTCCC
TGGTCATGTGCCCCTTCGCAGCTGAAGTGGAGAGGGTGTCATCTAGCGCAATTGAAGGATCATCTGAAGGGGCAA
ATTCTTTTGAATTGTTACATCATGCTGGAACCTGCAAAAAATACTTTTTCTAATGAGGAGAGAAAATATATGTAT
TTTTATATAATATCTAAAGTTATATTTCAGATGTAATGTTTTCTTTGCAAAGTATTGTAAATTATATTTGTGCTA
TAGTATTTGATTCAAAATATTTAAAAATGTCTTGCTGTTGACATATTTAATGTTTTAAATGTACAGACATATTTA
ACTGGTGCACTTTGTAAATTCCCTGGGGAAAACTTGCAGCTAAGGAGGGGAAAAAAATGTTGTTTCCTAATATCA
AATGCAGTATATTTCTTCGTTCTTTTTAAGTTAATAGATTTTTTCAGACTTGTCAAGCCTGTGCAAAAAAATTAA
AATGGATGCCTTGAATAATAAGCAGGATGTTGGCCACCAGGTGCCTTTCAAATTTAGAAACTAATTGACTTTAGA
AAGCTGACATTGCCAAAAAGGATACATAATGGGCCACTGAAATCTGTCAAGAGTAGTTATATAATTGTTGAACAG
GTGTTTTTCCACAAGTGCCGCAAATTGTACCTTTTTTGTTTTTTCAAAATAGAAAAGTTATTAGTGGTTTATCAG
CAAAAAAGTCCAATTTTAATTTAGTAAATGTTATCTTATACTGTACAATAAAAACATTGCCTTTGAATGTTAATT
TTTTGGTACAAAAATAAATTTATATGAAAACCTGAAAAAAAAAAAAAAAAAAAAAA
```

FIGURE 711

MDPNRISEDGTHCIYRILRLHENADFQDTTLESQDTKLIPDSCRRIKQAFQGAVQKELQHIVGSQHIRAEKAMVD
GSWLDLAKRSKLEAQPFAHLTINATDIPSGSHKVSLSSWYHDRGWAKISNMTFSNGKLIVNQDGFYYLYANICFR
HHETSGDLATEYLQLMVYVTKTSIKIPSSHTLMKGGSTKYWSGNSEFHFYSINVGGFFKLRSGEEISIEVSNPSL
LDPDQDATYFGAFKVRDID

FIGURE 712

CTGGGGGTCCGTTCCCCAACTTCCTCGGCGCTCCGGACTCCCAAGTCTCCGCCGGACCCTCCTTTGGATATTCCT
CGTGTCTCCGATTCTGAGAGAGGGGGAAGACGGTGGGGCCTCCCCACCTGCCCCGCAGAAG**ATG**CAGTTCTTTGG
CCGCCTGGTCAATACCTTCAGTGGCGTCACCAACTTGTTCTCTAACCCATTCCGGGTGAAGGAGGTGGCTGTGGC
CGACTACACCTCGAGTGACCGAGTTCGGGAGGAAGGGCAGCTGATTCTGTTCCAGAACACTCCCAACCGCACCTG
GGACTGCGTCCTGGTCAACCCCAGGAACTCACAGAGTGGATTCCGACTCTTCCAGCTGGAGTTGGAGGCTGACGC
CCTAGTGAATTTCCATCAGTATTCTTCCCAGCTGCTACCCTTCTATGAGAGCTCCCCTCAGGTCCTGCACACTGA
GGTCCTGCAGCACCTGACCGACCTCATCCGTAACCACCCCAGCTGGTCAGTGGCCCACCTGGCTGTGGAGCTAGG
GATCCGCGAGTGCTTCCATCACAGCCGTATCATCAGCTGTGCCAATTGCGCGGAGAACGAGGAGGGCTGCACACC
CCTGCACCTGGCCTGCCGCAAGGGTGATGGGGAGATCCTGGTGGAGCTGGTGCAGTACTGCCACACTCAGATGGA
TGTCACCGACTACAAGGGAGAGACCGTCTTCCATTATGCTGTCCAGGGTGACAATTCTCAGGTGCTGCAGCTCCT
TGGAAGGAACGCAGTGGCTGGCCTGAACCAGGTGAATAACCAAGGGCTGACCCCGCTGCACCTGGCCTGCCAGCT
GGGGAAGCAGGAGATGGTCCGCGTGCTGCTGCTGTGCAATGCTCGGTGCAACATCATGGGCCCCAACGGCTACCC
CATCCACTCGGCCATGAAGTTCTCTCAGAAGGGGTGTGCGGAGATGATCATCAGCATGGACAGCAGCCAGATCCA
CAGCAAAGACCCCCGTTACGGAGCCAGCCCCCTCCACTGGGCCAAGAACGCAGAGATGGCCCGCATGCTGCTGAA
ACGGGGCTGCAACGTGAACAGCACCAGCTCCGCGGGGAACACGGCCCTGCACGTGGCGGTGATGCGCAACCGCTT
CGACTGTGCCATAGTGCTGCTGACCCACGGGGCCAACGCGGATGCCCGCGGAGAGCACGGCAACACCCCGCTGCA
CCTGGCCATGTCGAAAGACAACGTGGAGATGATCAAGGCCCTCATCGTGTTCGGAGCAGAAGTGGACACCCCGAA
TGACTTTGGGGAGACTCCTACATTCCTAGCCTCCAAAATCGGCAGACTTGTCACCAGGAAGGCGATCTTGACTCT
GCTGAGAACCGTGGGGGGCCGAATACTGCTTCCCACCCATCCACGGGGTCCCCGCGGAGCAGGGCTCTGCAGCGCC
ACATCATCCCTTCTCCCTGGAAAGAGCTCAGCCCCCACCGATCAGCCTAAACAACCTAGAACTACAGGATCTCAT
GCACATCTCACGGGCCCGGAAGCCAGCGTTCATCCTGGGCTCCATGAGGGACGAGAAGCGGACCCACGACCACCT
GCTGTGCCTGGATGGAGGAGGAGTGAAAGGCCTCATCATCATCCAGCTCCTCATCGCCATCGAGAAGGCCTCGGG
TGTGGCCACCAAGGACCTGTTTGACTGGGTGGCGGGCACCAGCACTGGAGGCATCCTGGCCCTGGCCATTCTGCA
CAGTAAGTCCATGGCCTACATGCGCGGCATGTACTTTCGCATGAAGGATGAGGTGTTCCGGGGGCTCCAGGCCCTA
CGAGTCGGGGCCCCTGGAGGAGTTCCTGAAGCGGGAGTTTGGGGAGCACACCAAGATGACGGACGTCAGGAAACC
CAAGGTGATGCTGACAGGGACACTGTCTGACCGGCAGCCGGCTGAACTCCACCTCTTCCGGAACTACGATGCTCC
AGAAACTGTCCGGGAGCCTCGTTTCAACCAGAACGTTAACCTCAGGCCTCCAGCTCAGCCCTCAGACCAGCTGGT
GTGGCGGGCGGCCCGAAGCAGCGGGGCAGCTCCTACTTACTTCCGACCCAATGGGCGCTTCCTGGACGGTGGGCT
GCTGGCCAACAACCCCACGCTGGATGCCATGACCGAGATCCATGAGTACAATCAGGACCTGATCCGCAAGGGTCA   .
GGCCAACAAGGTGAAGAAACTCTCCATCGTTGTCTCCCTGGGGACAGGGAGGTCCCCACAAGTGCCTGTGACCTG
TGTGGATGTCTTCCGTCCCAGCAACCCCTGGGAGCTGGCCAAGACTGTTTTTGGGGCCAAGGAACTGGGCAAGAT
GGTGGTGGACTGTTGCACGGATCCAGACGGGCGGGCTGTGGACCGGGCACGGGCCTGGTGCGAGATGGTCGGCAT
CCAGTACTTCAGATTGAACCCCCAGCTGGGGACGGACATCATGCTGGATGAGGTCAGTGACACAGTGCTGGTCAA
CGCCCTCTGGGAGACCGAGGTCTACATCTATGAGCACCGCGAGGAGTTCCAGAAGCTCATCCACCTGCTGCTCTC
ACCC**TGA**GGGTCCCCAGCCTCTCACCGGCCCCAGCTGACCTCGTCCATTCAGCCCCTGCCAGGCCAAGCCCAGCC
ACTGCCCTCCCGGGCAGATCTGGGCCCAGGCACCTCTGAGTCCATAGACCAGGCCTGGGAGAATGCCAAGCTGCC
TGCCCGAGGCTGGTCCTGAAGGCCTGTCTCCCACTAACCCCCCCTTCCATCACTTTCTGTCATGCCAGGXTGGGA
AAGTCTAGAGCCCCCTTTGGCCCCTTTCCCTGACTGTCAAGGACAACTGACTCCCCATCAGCTCAAACATTAAG
GGTACCCGGGCACAACCGTACCCGTGCCCCCAGCCCCAGCCTACCCTGAGGGCCTGCCGGGCTGCCTTTGCCCCA
GCCCCCAGCAAGGGCATTCCCAGGCTTCCTGGTGGGTGCAGCCCAATCCCTCTGCCCTCTGCTCCGTTCCCTGGG
GGCTGGGACTAAAGAAATGGGTGTCCCCCACCCCATCAGCTGGGAAAGCCCAGGCCGCAGGAGTGGGATGCCCGT
TGGACTTTGCCCCTCACACTGGCCCAGCCCCTCACACTGCCCCACCCCGAGAACCCTCAGCTCTCAAAGGTCACT
CCTGGGAGTTTCTTCTTCCCAATGGAAGTGGCTTAAGAGCCAAAACTGAAATAAATCATTTGGATTCAAGTTCAA
AAAAAAAAAAAAAAA

FIGURE 713

MQFFGRLVNTFSGVTNLFSNPFRVKEVAVADYTSSDRVREEGQLILFQNTPNRTWDCVLVNPRNSQSGFRLFQLE
LEADALVNFHQYSSQLLPFYESSPQVLHTEVLQHLTDLIRNHPSWSVAHLAVELGIRECFHHSRIISCANCAENE
EGCTPLHLACRKGDGEILVELVQYCHTQMDVTDYKGETVFHYAVQGDNSQVLQLLGRNAVAGLNQVNNQGLTPLH
LACQLGKQEMVRVLLLCNARCNIMGPNGYPIHSAMKFSQKGCAEMIISMDSSQIHSKDPRYGASPLHWAKNAEMA
RMLLKRGCNVNSTSSAGNTALHVAVMRNRFDCAIVLLTHGANADARGEHGNTPLHLAMSKDNVEMIKALIVFGAE
VDTPNDFGETPTFLASKIGRLVTRKAILTLLRTVGAEYCFPPIHGVPAEQGSAAPHHPFSLERAQPPPISLNNLE
LQDLMHISRARKPAFILGSMRDEKRTHDHLLCLDGGGVKGLIIIQLLIAIEKASGVATKDLFDWVAGTSTGGILA
LAILHSKSMAYMRGMYFRMKDEVFRGSRPYESGPLEEFLKREFGEHTKMTDVRKPKVMLTGTLSDRQPAELHLFR
NYDAPETVREPRFNQNVNLRPPAQPSDQLVWRAARSSGAAPTYFRPNGRFLDGGLLANNPTLDAMTEIHEYNQDL
IRKGQANKVKKLSIVVSLGTGRSPQVPVTCVDVFRPSNPWELAKTVFGAKELGKMVVDCCTDPDGRAVDRARAWC
EMVGIQYFRLNPQLGTDIMLDEVSDTVLVNALWETEVYIYEHREEFQKLIHLLLSP

FIGURE 714

TAAAACTTTAGGAAATTAGTACCAGACTTTTATATTGGTCAACAGCAAAATGAACATTACTACTCAGCCTCCAAC
ACATGCAGTTTGCCTATACCAGGGATCCTGTCAAAATATACACCACTTATAGCTTCTTAAGTGCAGTTATCATAG
AGCACAGTCCCTGACATCACACAGCTGCAGAG**ATG**AATAAACAAAGAGGAACCTACTCAGAAGTGAGTCTGGCCC
AGGACCCAAAGAGGCAGCAAAGGAAACTTAAGGGCAATAAAATCTCCATTTCAGGAACCAAACAGGAAATATTCC
AAGTAGAATTAAACCTTCAAAATGCTTCTTCGGATCATCAAGGGAATGACAAGACATATCACTGCAAAGGTTTAC
TGCCACCTCCAGAGAAGCTCACTGCTGAGGTCCTAGGAATCATTTGCATTGTCCTGATGGCCACTGTGTTAAAAA
CAATAGTTCTTATTCCTTGTATTGGAGTACTGGAGCAGAACAATTTTTCCCTGAATAGAAGAATGCAGAAAGCAC
GTCATTGTGGCCATTGTCCTGAGGAGTGGATTACATATTCCAACAGTTGTTATTACATTGGTAAGGAAAGAAGAA
CTTGGGAAGAAAGAGTTTGCTGGCCTGTGCTTCGAAGAACTCTGATCTGCTTTCTA**TAG**ATAATGAGGAAGAAAT
GGTAAGACGTAAATGTTTCAACACTTTACTAAAAGCTTATTTCTGTCAATATCATATTTGTAGAAATCATCCATA
TGTTTATACATATATTTACTTCATATATTTTTAAGTCTGTGTAGTATTCAACTGACTTCATAATATTTTTATATT
CATATACTGTTAATGCACATTTGGTTATTTCCAGTTTTGCTTTTCATGGAAACCCATGCTTCTATAAATGTTTTT
ATCACAAAATAAATATAAAGAAAACTAAAAAAAAACCAAAAAAAAAAAAAAAAAAGGCGGCCGCGATATAG

FIGURE 715

MNKQRGTYSEVSLAQDPKRQQRKLKGNKISISGTKQEIFQVELNLQNASSDHQGNDKTYHCKGLLPPPEKLTAEV
LGIICIVLMATVLKTIVLIPCIGVLEQNNFSLNRRMQKARHCGHCPEEWITYSNSCYYIGKERRTWEERVCWPVL
RRTLICFL

FIGURE 716

GAATTCGATTTTTGAGACTTCTCCATCGGGATCGCCTGGTGTCACCAAGTGTCCACTGGTACTGAGGTTTGCTGC
CTGCCTTCTTGCC**ATG**TCTAACGAAGTAGAAACAAGTGCAACCAATGGTCAGCCCGACCAACAGGCCGCACCAAA
AGCACCCTCAAAGAAGGAAAAAAAGAAAGGCCCTGAAAAGACAGATGAATATCTCTTAGCAAGGTTCAAAGGCGA
TGGTGTAAAATATAAGGCCAAGCTGATTGGCATTGATGATGTGCCAGATGCAAGAGGGGATAAAATGAGCCAAGA
CTCTATGATGAAACTAAAGGGAATGGCGGCAGCTGGTCGGTCTCAGGGACAACACAAACAAAGGATCTGGGTCAA
CATTTCCCTTTCTGGGATAAAAATAATTGATGAGAAACTGGGGTAATAGAGCATGAACATCCAGTAAATAAGAT
TTCTTTCATTGCCCGTGATGTGACAGACAACCGGGCATTTGGTTACGTGTGTGGAGGAGAAGGCCAGCATCAGTT
TTTTGCCATAAAAACCGGGCAACAGGCTGAACCATTAGTTGTTGATCTTAAAGACCTTTTTCAAGTTATCTATAA
TGTAAAGAAAAAGGAAGAAGAAAAGAAAAAGATAGAGGAAGCCAGCAAAGCAGTTGAGAATGGGAGTGAGGCCCT
AATGATTCTAGATGACCAAACTAACAAACTGAAATCGGAAAGCAAAGATATCCTGTTAGTGGATCTAAACTCTGA
AATCGACACCAATCAGAATTCTTTAAGAGAAAATCCATTCTTAACAAACGGCATCACCTCCTGTTCTCTTCCTCG
ACCAACGCCTCAGGCATCCTTCTTGCCTGAAAATGCCTTTTCTGCCAATCTCAACTTCTTTCCCACCCCTAATCC
TGATCCTTTCCGTGACGATCCTTTCACACAGCCAGACCAATCGACACCTTCTTCGTTTGATTCTCTCAAATCTCC
AGATCAGAAGAAAGAGAATTCGAGTAGCTCGTCTACTCCGCTGAGTAATGGGCCCCTGAATGGTGATGTTGACTA
CTTTGGTCAGCAATTTGACCAGATCTCTAACCGGACTGGCAAACAGGAAGCTCAGGCAGGCCCATGGCCCTTTTC
AAGTTCGCAAACCCAGCCAGCAGTGAGAACTCAAAATGGGGTATCTGAAAGAGAACAGAACGGCTTCTCTGTCAA
ATCCTCCCCGAACCCTTTTGTGGGAAGCCCTCCCAAAGGACTGTCCATACAGAATGGCGTAAAGCAGGACTTGGA
AAGCTCTGTCCAGTCCTCACCACATGACTCCATAGCCATTATCCCACCTCCACAAAGTACCAAACCAGGAAGAGG
CAGAAGGACTGCTAAGTCTTCAGCCAATGACTTGCTTGCATCAGACATCTTTGCTCCTCCCGTCTCAGAACCTTC
AGGCCAGGCGTCACCCACAGGACAACCTACAGCCCTGCAGCCCAACCCTCTGGATCTCTTCAAAACAAGTGCTCC
TGCCCCAGTGGGGCCCCAGGTGGGTCTAGGTGGTGTAACTGTCACACTTCCTCAGGCAGGACCATGGAACACAGC
ATCTTTGGTCTTCAATCAGTCCCCTTCAATGGCTCCGGGAGCCATGATGGGTGGTCAACCTTCAGGTTTTAGTCA
GCCCGTCATTTTTGGTACAAGTCCAGCTGTTTCAGGTTGGAACCAGCCTTCACCCTTTGCAGCCTCAACTCCCCC
TCCAGTGCCTGTTGTCTGGGGCCCTTCTGCATCTGTGGCACCCAATGCTTGGTCAACAACAAGCCCTTTGGGGAA
TCCTTTTCAGAGCAATATTTTTCCAGCTCCTGCTGTGTCCACTCAGCCCCCATCCATGCACTCCTCTCTCCTGGT
CACTCCTCCTCAGCCACCTCCCAGAGCTGGCCCTCCCAAGGACATCTCCAGTGATGCCTTCACTGCCTTAGACCC
ACTTGGGGATAAAGAGATCAAGGATGTGAAAGAAATGTTTAAGGATTTCCAACTGCGGCAGCCACCTGCTGTGCC
CGCGCGGAAGGGAGAGCAGACTTCTTCTGGGACTTTGAGTGCCTTTGCCAGTTATTTCAACAGCAAGGTTGGCAT
TCCTCAGGAGAATGCAGACCATGATGACTTTGATGCTAATCAACTATTGAACAAGATCAATGAACCACCAAAGCC
AGCTCCCAGACAAGTTTCCCTGCCAGTTACCAAATCTACTGACAATGCATTTGAGAACCCTTTCTTTAAAGATTC
TTTTGGTTCATCACAAGCCTCTGTGGCTTCTTCTCAACCTGTATCTTCTGAGATGTATAGGGATCCATTTGGAAA
TCCTTTTGCC**TAA**ATTCTGAACTTGGTCTGCAGACCATCCAGAGGAATAAAAAGGTTGGCCTTAGTAGTCAAAAA
CAAAGCTGATAGCCAGACACGTTCTGATTTCTGCCCTTGTTCCAGCTTTGACGTATTATCTGTTGCCTTATTTCT
CATTGCCTCTTCTACTTGTAAAATGCTTTTCACTTTCTGTCTAGGTTAAAGCTAAACTGAATCTATGGCTTTAAA
TAAATTAAGATCCTAAACTCTCTAGCTTAAGTGTAAATGAAGTACAGTAGTTTCCCTACTGAACCCTGCCTCTTG
TGTCCCTGGAACCTTCTAGAACACCTGCCTTCTACCCTCTGGTTGGGAGATGCAGCCACCACATCCCTTCATATC
ATACTGTTTTGAATAAATTTTCAAATCCTTAAAAAAAAAAAAAAAAAAAA

FIGURE 717

MSNEVETSATNGQPDQQAAPKAPSKKEKKKGPEKTDEYLLARFKGDGVKYKAKLIGIDDVPDARGDKMSQDSMMK
LKGMAAAGRSQGQHKQRIWVNISLSGIKIIDEKTGVIEHEHPVNKISFIARDVTDNRAFGYVCGGEGQHQFFAIK
TGQQAEPLVVDLKDLFQVIYNVKKKEEEKKKIEEASKAVENGSEALMILDDQTNKLKSESKDILLVDLNSEIDTN
QNSLRENPFLTNGITSCSLPRPTPQASFLPENAFSANLNFFPTPNPDPFRDDPFTQPDQSTPSSFDSLKSPDQKK
ENSSSSSTPLSNGPLNGDVDYFGQQFDQISNRTGKQEAQAGPWPFSSSQTQPAVRTQNGVSEREQNGFSVKSSPN
PFVGSPPKGLSIQNGVKQDLESSVQSSPHDSIAIIPPPQSTKPGRGRRTAKSSANDLLASDIFAPPVSEPSGQAS
PTGQPTALQPNPLDLFKTSAPAPVGPQVGLGGVTVTLPQAGPWNTASLVFNQSPSMAPGAMMGGQPSGFSQPVIF
GTSPAVSGWNQPSPFAASTPPPVPVVWGPSASVAPNAWSTTSPLGNPFQSNIFPAPAVSTQPPSMHSSLLVTPPQ
PPPRAGPPKDISSDAFTALDPLGDKEIKDVKEMFKDFQLRQPPAVPARKGEQTSSGTLSAFASYFNSKVGIPQEN
ADHDDFDANQLLNKINEPPKPAPRQVSLPVTKSTDNAFENPFFKDSFGSSQASVASSQPVSSEMYRDPFGNPFA

FIGURE 718

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GTCGCGCCATTTTGCCGGGGTTTGAATGTGAGGCGGAGCGGCGGCAGGAGCGGATAGTGCCAGCTACGGTCCGCG
GCTGGGGTTCCCTCCTCCGTTTCTGTATCCCCACGAGATCCTATAGCAATGGAACTCAGCGATGCAAATCTGCAA
ACACTAACAGAATATTTAAAGAAAACACTTGATCCTGATCCTGCCATCCGACGTCCAGCTGAGAAATTTCTTGAA
TCTGTTGAAGGAAATCAGAATTATCCACTGTTGCTTTTGACATTACTGGAGAAGTCCCAGGATAATGTTATCAAA
GTATGTGCTTCAGTAACATTCAAAAACTATATTAAAAGGAACTGGAGAATTGTTGAAGATGAACCAAACAAAATT
TGTGAAGCCGATCGAGTGGCCATTAAAGCCAACATAGTGCACTTGATGCTTAGCAGCCCAGAGCAAATTCAGAAG
CAGTTAAGTGATGCAATTAGCATTATTGGCAGAGAAGATTTTCCACAGAAATGGCCTGACTTGCTGACAGAAATG
GTGAATCGCTTTCAGAGTGGAGATTTCCATGTTATTAATGGAGTCCTCCGTACAGCACATTCATTATTTAAAAGA
TACCGTCATGAATTTAAGTCAAACGAGTTATGGACTGAAATTAAGCTTGTTCTGGATGCCTTTGCTTTGCCTTTG
ACTAATCTTTTTAAGGCCACTATTGAACTCTGCAGTACCCATGCAAATGATGCCTCTGCCCTGAGGATTCTGTTT
TCTTCCCTGATCCTGATCTCAAAATTGTTCTATAGTTTAAACTTTCAGGATCTCCCTGAATTTTGGGAAGGTAAT
ATGGAAACTTGGATGAATAATTTCCATACTCTCTTAACATTGGATAATAAGCTTTTACAAACTGATGATGAAGAG
GAAGCCGGCTTATTGGAGCTCTTAAAATCCCAGATTTGTGATAATGCCGCACTCTATGCACAAAAGTACGATGAA
GAATTCCAGCGATACCTGCCTCGTTTTGTTACAGCCATCTGGAATTTACTAGTTACAACGGGTCAAGAGGTTAAA
TATGATTTGTTGGTAAGTAATGCAATTCAATTTCTGGCTTCAGTTTGTGAGAGACCTCATTATAAGAATCTATTT
GAGGACCAGAACACGCTGACAAGTATCTGTGAAAAGGTTATTGTGCCTAACATGGAATTTAGAGCTGCTGATGAA
GAAGCATTTGAAGATAATTCTGAGGAGTACATAAGGAGAGATTTGGAAGGATCTGATATTGATACTAGACGCAGG
GCTGCTTGTGATCTGGTACGAGGATTATGCAAGTTTTTTGAGGGACCTGTGACAGGAATCTTCTCTGGTTATGTT
AATTCCATGCTGCAGGAATACGCAAAAAATCCATCTGTCAACTGGAAACACAAAGATGCAGCCATCTACCTAGTG
ACATCTTTGGCATCAAAAGCCCAAACACAGAAGCATGGAATTACACAAGCAAATGAACTTGTAAACCTAACTGAG
TTCTTTGTGAATCACATCCTCCCTGATTTAAAATCAGCTAATGTGAATGAATTTCCTGTCCTTAAAGCTGACGGT
ATCAAATATATTATGATTTTTAGAAATCAAGTGCCAAAAGAACATCTTTTAGTCTCGATTCCTCTCTTGATTAAT
CATCTTCAAGCTGGAAGTATTGTTGTTCATACTTACGCAGCTCATGCTCTTGAACGGCTCTTTACTATGCGAGGG
CCTAACAATGCCACTCTCTTTACAGCTGCAGAAATCGCACCGTTTGTTGAGATTCTGCTAACAAACCTTTTCAAA
GCTCTCACACTTCCTGGCTCTTCAGAAAATGAATATATTATGAAAGCTATCATGAGAAGTTTTTCTCTCCTACAA
GAAGCCATAATCCCCTACATCCCTACTCTCATCACTCAGCTTACACAGAAGCTATTAGCTGTTAGTAAGAACCCA
AGCAAACCTCACTTTAATCACTACATGTTTGAAGCAATATGTTTATCCATAAGAATAACTTGCAAAGCTAACCCT
GCTGCTGTTGTAAATTTTGAGGAGGCTTTGTTTTTGGTGTTTACTGAAATCTTACAAAATGATGTGCAAGAATTT
ATTCCATACGTCTTTCAAGTGATGTCTTTGCTTCTGGAAACACACAAAAATGACATCCCGTCTTCCTATATGGCC
TTATTTCCTCATCTCCTTCAGCCAGTGCTTTGGGAAAGAACAGGAAATATTCCTGCTCTAGTGAGGCTTCTTCAA
GCATTCTTAGAACGCGGTTCAAACACAATAGCAAGTGCTGCAGCTGACAAAATTCCTGGGTTACTAGGTGTCTTT
CAGAAGCTGATTGCATCCAAAGCAAATGACCACCAAGGTTTTTATCTTCTAAACAGTATAATAGAGCACATGCCT
CCTGAATCAGTTGACCAATATAGGAAACAAATCTTCATTCTGCTATTCCAGAGACTTCAGAATTCCAAAACAACC
AAGTTTATCAAGAGTTTTTTAGTCTTTATTAATTTGTATTGCATAAAATATGGGGCACTAGCACTACAAGAAATA
TTTGATGGTATACAACCAAAAATGTTTGGAATGGTTTTGGAAAAAATTATTATTCCTGAAATTCAGAAGGTATCT
GGAAATGTAGAGAAAAGATCTGTGCGGTTGGCATAACCAACTTACTAACAGAATGTCCCCCAATGATGGACACT
GAGTATACCAAACTGTGGACTCCATTATTACAGTCTTTGATTGGTCTTTTTGAGTTACCCGAAGATGATACCATT
CCTGATGAGGAACATTTTATTGACATAGAAGATACACCAGGATATCAGACTGCCTTCTCACAGTTGGCATTTGCT
GGGAAAAAAGAGCATGATCCTGTAGGTCAAATGGTGAATAACCCCAAAATTCACCTGGCACAGTCACTTCACATG
TTGTCTACCGCCTGTCCAGGAAGGGTTCCATCAATGGTGAGCACCAGCCTGAATGCAGAAGCGCTCCAGTATCTC
CAAGGGTACCTTCAGGCAGCCAGTGTGACACTGCTTTAAACTGCATTTTTCTAATGGGCTAAACCCAGATGGTTT
CCTAGGAAATCACAGGCTTCTGAGCACAGCTGCATTAAAACAAAGGAAGTTTTCCTTTTGAACTTGTCACGA
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FIGURE 719

MELSDANLQTLTEYLKKTLDPDPAIRRPAEKFLESVEGNQNYPLLLLTLLEKSQDNVIKVCASVTFKNYIKRNWR
IVEDEPNKICEADRVAIKANIVHLMLSSPEQIQKQLSDAISIIGREDFPQKWPDLLTEMVNRFQSGDFHVINGVL
RTAHSLFKRYRHEFKSNELWTEIKLVLDAFALPLTNLFKATIELCSTHANDASALRILFSSLILISKLFYSLNFQ
DLPEFWEGNMETWMNNFHTLLTLDNKLLQTDDEEEAGLLELLKSQICDNAALYAQKYDEEFQRYLPRFVTAIWNL
LVTTGQEVKYDLLVSNAIQFLASVCERPHYKNLFEDQNTLTSICEKVIVPNMEFRAADEEAFEDNSEEYIRRDLE
GSDIDTRRRAACDLVRGLCKFFEGPVTGIFSGYVNSMLQEYAKNPSVNWKHKDAAIYLVTSLASKAQTQKHGITQ
ANELVNLTEFFVNHILPDLKSANVNEFPVLKADGIKYIMIFRNQVPKEHLLVSIPLLINHLQAGSIVVHTYAAHA
LERLFTMRGPNNATLFTAAEIAPFVEILLTNLFKALTLPGSSENEYIMKAIMRSFSLLQEAIIPYIPTLITQLTQ
KLLAVSKNPSKPHFNHYMFEAICLSIRITCKANPAAVVNFEEALFLVFTEILQNDVQEFIPYVFQVMSLLLETHK
NDIPSSYMALFPHLLQPVLWERTGNIPALVRLLQAFLERGSNTIASAAADKIPGLLGVFQKLIASKANDHQGFYL
LNSIIEHMPPESVDQYRKQIFILLFQRLQNSKTTKFIKSFLVFINLYCIKYGALALQEIFDGIQPKMFGMVLEKI
IIPEIQKVSGNVEKKICAVGITNLLTECPPMMDTEYTKLWTPLLQSLIGLFELPEDDTIPDEEHFIDIEDTPGYQ
TAFSQLAFAGKKEHDPVGQMVNNPKIHLAQSLHMLSTACPGRVPSMVSTSLNAEALQYLQGYLQAASVTLL

FIGURE 720A

CCGTCCCGGGGCGGACGGGCGCGGGCGGGAGG**ATG**GAGCTGAACTCCCTGCTGATCCTGCTGGAGGCGGCCGAGT
ACCTGGAGCGCAGGGATCGAGAGGCCGAGCACGGCTACGCCTCGGTGCTGCCCTTCGACGGCGACTTCGCCAGGG
AGAAAACAAAGGCGGCCGGCCTGGTGCGCAAGGCCCCGAACAACAGGTCTTCACACAACGAGCTAGAAAAGCACA
GACGAGCCAAACTCAGGCTGTACCTTGAGCAGCTCAAGCAACTGGTGCCCCTGGGCCCCGACAGCACCCGCCACA
CCACGCTGAGCCTCCTGAAGCGGGCCAAGGTGCACATCAAGAAACTGGAGGAGCAGGACCGCCGGGCACTGAGCA
TCAAGGAGCAGCTGCAGCAGGAGCATCGTTTCCTGAAGCGGCGCCTGGAGCAGCTGTCGGTGCAGAGCGTGGAGC
GCGTGCGCACAGATAGCACGGGCTCTGCTGTCTCCACGGACGACTCAGAGCAAGAAGTGGACATAGAGGGCATGG
AGTTTGGCCCTGGTGAGCTGGACAGTGTTGGCAGCAGCAGTGACGCGGACGACCACTACAGCCTGCAGAGTGGCA
CCGGCGGCGACAGTGGCTTCGGGCCCCACTGCCGGCGGCTGGGCCGCCCCGCCCTCTCG**TAG**CCCGTGCCCTCT
GCTCCTTGGCCTGCCTGCCCGCCAGCCACGCGTGTCAGCCCTCCAGTTCTCCTTCAGTTGACGCCAGCCTCTCCA
CAGGCCCACTGCTGTGCCATTCTGGAAGCTCCAGCTGCTGCTGGGCTGCCTGGCACTGCCCGCTTGCCGGTCAGG
GCCTGCCGAGCTGCCTGCCCCTTCCAGCTGGGCAGAGTCCCCTGCAAGGAGGCAGGGCCCAGCTTCCACATCCGG
AGCCCTGGTCAGCATAGCCGCCCACGGTCTGTTCTCAGATTCCTAATCATTCCAGAAGTATTAAACGTCATTGCT
GCAAACCTCGGCAGGTGCCGTGTGAGGGGCTTAATGACCACCACAGGGAGCTCAGACCCCAACCCTGGATCCCAG
GAGAAAGGAGTGGACCGAGGAAGGAAGGAAGGCAAGGCTGTCTGTCCATCCGTCCGTCTGTCCACCTACCTGTCA
GTCCACATAGGCTCCTGGCGTGGACAAGGGGTCTGTGAAGGGCGGGAACTGGGTGAGCACCTGGGGCAGGTGGGT
GGTTAAGGTCCTTCCCACTTCGCAGGTGTCAGAACCTAGGGCTGGGCTCTCGGGGCCAGGCAGGCCAGCCCAGCC
CACGCCGAGCTGGGCAGCGTCTGCTCTGGTAGGACTGTCAGACGCACACGCGCACGCACCTAGACACACCCACTC
ATGTACATGCTCACACATGCAGACACACCTGGGCGTCCCGAGGTCACATGTTCTGGGGATGATGGCCTTCAGGGG
TCATCTGGCAAACAGCCCCTGGGCTGTGCCTGGATCCCCCTCTAGCTCCTGCTCACCCACGCCCACCCAGTAGTC
CTGCCTGTCTGCACAGGAGAGGGGCTTCTCTTCCTGGCTGGGGCTGGGGTGAACTGGAGGCTGGTTAAGTTGCAG
CCGCTGGGTCCTCGGGGGCTTACTCATCTCCCTTTTTTAAACAAAAAGCAAAAAAGTAAAATGCTGCACTGCCCA
GCAGCCCGGTTAGGGCTCCTGGAGCCACCTTAGGAAAGGGCTTCTCATGAGCTCTGCTGCGGCAGCTTCAGCTGG
CAGAGAGGCTTTCCCAGAAAAAAAAAAAAAAACCATTTTTAAAAAGAAGAAAGCCTAAAGACTCTCGGCCTAGGGA
CGTCCGTGTGTGCCGCCTCTGTTTCCTGTACCAGATTTTTGTATTCTATTTTCCTAGCTGTTGTTGCGTCCTTGT
TTGCTGAGGGGTGGGAGCCACCCAGCGTCTCAGGGACCTGTCCCTCCGTCACGTCGTCAAAGTGTGCCTTGTGTC
TTGTGTCAGGCCTTGCCCTTCCCACCAGCATGTCCCTCGTGGCTCAGGGTGCCCCAGGCCTGCCCAGCTAGTGCT
GTCCTCCCATCTCCTGTGGGCAGCCCCTCCCGGCAGCCAGGGCTTCCTGGAGGCGATGCAGCCAGGCCCCTGTGG
GTGGCACGGAGGGGCTGTGACCTGGTCCCCAGTGTTGCCCTCCCCAGTGGCTGGCAGGGGCCTGCTTGCTCACTA
GAGAGATGGATTCTCACCTGTCACCTGACTCGAGCCCCCTGCTTCCTGGCCTAGGCGAGGGTTCCAGGTTTCAGA
CACTGGCAGCCAATGAAGACTGTGCTCGCTGGGTGGTGCAGGCCTGGCACCAGGAGGCTTGCACCCGCCTTTCCT
TCCTGACGTCCTCTGTCCTTGGGGCTGGCCCATAGCAGTGCCTGCCGTGCCTCTGGTACATCTGTAGCCAATTCC
CATATCATGGGGAAAATTCGTGTCTATTTTCAGTCGTACGCATAGACGCCCCAGGATGGGGGGCCCACTGTGGCG
GAAGGGGGTCCCTGGAAACAACTCTGGCACAGAACCTGCCCTGCAGGCTGTAGGGGGCATGGTGCCTGGAGCTGA
GGGGCATCCGAACGCGTTGCGGGTGGTTGTGAGGAGGCCTGTCTGCATCTCCTTCCGGCCCCACTGGGGTCCAGG
GGTGCCCAGAAAGGAGCTTCCCCTGCCTGCCTGAGTCTGTCCCCCCAGGCTTCATTTCAAACACCGTGGCACCTC
CGAGCAAGGCGGGCCGTGTGTAAAAGCTTGCTTCCCCAGCCAGCACTGCAGGGCCCTGAGGTGGTCGTGTCCCTG
CCCTCAATTCTTGAAGCACCAGCTCCCTGCCCCACCCTCCAGTGCCTGAGGCAGCTAGGGGCTTCTGCTCTCATC
TCTGACCAGCAGAATCCACCCGGTGACCAGTGGTGGCCCCTCAGCCCACCCTCCCGGCAGCTCAGCCTGTGGCTC
TTGAGGCCGTGGTTCCCACGTGGACTGGGAGGCAGTCTCAGCCACCCGGGGTGCTGTTCAGCTGCCCCTCCCTGC
CATCAGCAGGTGGGTGAGGGGTTGCCCACTGGGTGGGGGCCCGTGCTAGGAGTCACCACATGCTCCAACCTCCCA
CTGCTCCCTGTCAGGGGCCCAGGCTGCCATCACTGGAGGCTGCAGGGACCAAGAGGCCATCACCGTGTCTATAGA
GAGCAGACAGAAGCAGAACAGAGCCCGGGGCTCCTGAGCCTCTGCGTGTGCCCTCCCAGCCCACACCAGTGCTCT
CGGCCACTGAGCACCCAGACTCAGGCTTGGGTTCCCCAGCCTTATTGGAAGGCAGCTCCCGCATACCAGGATAAC
CCCCGCAAACCACATAGCAGACCCCCGCCATCCTCGCAGAGTGGGAGAGGCTGCAGCAAGGCTTTGCCTCTGCAG
ACCCCATCTTAGTGGCACGGTGCTTGGGCCTGTGTCCCCGGGTGGTGGAACCCTGTACCGGTCTGTGGCCCTAGG
GTCCCTGCTCTGTCTGCCCCGGCCCGTGCTGTCCGCTGGGTGAGGCAGGCTCCCCCGTGCCCTGCCTCCCTCTGT
CAGGGAACCTGGGACCCCCTCCCCACTGCCTGCACAGAGGACCCTGACCCTCGGCCAGCAGGGTGGCCCCAGGTC

FIGURE 720B

CATGTTGGGCACTAGGGCAGGTTCCGTGCCAGAGTCGGGGGCCACACGAGGGCCTGGTGCCGGTGAGGGGGGCGT
GCGCTAGAGGGGGAAAGGGGCCCCCGGCCACCTGTCCACCGTGTGGGCCGTGCTGTGTCCTTATGTCATTGTAAT
ATAAATACAGATTTTTATATCTC

FIGURE 721

MELNSLLILLEAAEYLERRDREAEHGYASVLPFDGDFAREKTKAAGLVRKAPNNRSSHNELEKHRRAKLRLYLEQ
LKQLVPLGPDSTRHTTLSLLKRAKVHIKKLEEQDRRALSIKEQLQQEHRFLKRRLEQLSVQSVERVRTDSTGSAV
STDDSEQEVDIEGMEFGPGELDSVGSSSDADDHYSLQSGTGGDSGFGPHCRRLGRPALS

FIGURE 722

GAGGTGTTTCCCTTAGCTATGGAAACTCTATAAGAGAGATCCAGCTTGCCTCCTCTTGAGCAGTCAGCAACAGGG
TCCCGTCCTTGACACCTCAGCCTCTACAGGACTGAGAAGAAGTAAAACCGTTTGCTGGGGCTGGCCTGACTCACC
AGCTGCC**ATG**CAGCAGCCCTTCAATTACCCATATCCCCAGATCTACTGGGTGGACAGCAGTGCCAGCTCTCCCTG
GGCCCCTCCAGGCACAGTTCTTCCCTGTCCAACCTCTGTGCCCAGAAGGCCTGGTCAAAGGAGGCCACCACCACC
ACCGCCACCGCCACCACTACCACCTCCGCCGCCGCCGCCACCACTGCCTCCACTACCGCTGCCACCCCTGAAGAA
GAGAGGGAACCACAGCACAGGCCTGTGTCTCCTTGTGATGTTTTTCATGGTTCTGGTTGCCTTGGTAGGATTGGG
CCTGGGGATGTTTCAGCTCTTCCACCTACAGAAGGAGCTGGCAGAACTCCGAGAGTCTACCAGCCAGATGCACAC
AGCATCATCTTTGGAGAAGCAAATAGGCCACCCCAGTCCACCCCCTGAAAAAAAGGAGCTGAGGAAAGTGGCCCA
TTTAACAGGCAAGTCCAACTCAAGGTCCATGCCTCTGGAATGGGAAGACACCTATGGAATTGTCCTGCTTTCTGG
AGTGAAGTATAAGAAGGGTGGCCTTGTGATCAATGAAACTGGGCTGTACTTTGTATATTCCAAAGTATACTTCCG
GGGTCAATCTTGCAACAACCTGCCCCTGAGCCACAAGGTCTACATGAGGAACTCTAAGTATCCCCAGGATCTGGT
GATGATGGAGGGGAAGATGATGAGCTACTGCACTACTGGGCAGATGTGGGCCCGCAGCAGCTACCTGGGGGCAGT
GTTCAATCTTACCAGTGCTGATCATTTATATGTCAACGTATCTGAGCTCTCTCTGGTCAATTTTGAGGAATCTCA
GACGTTTTTCGGCTTATATAAGCTC**TAA**GAGAAGCACTTTGGGATTCTTTCCATTATGATTCTTTGTTACAGGCA
CCGAGAATGTTGTATTCAGTGAGGGTCTTCTTACATGCATTTGAGGTCAAGTAAGAAGACATGAACCAAGTGGAC
CTTGAGACCACAGGGTTCAAAATGTCTGTAGCTCCTCAACTCACCTAATGTTTATGAGCCAGACAAATGGAGGAA
TATGACGGAAGAACATAGAACTCTGGGCTGCCATGTGAAGAGGGAGAAGCATGAAAAAGCAGCTACCAGGTGTTC
TACACTCATCTTAGTGCCTGAGAGTATTTAGGCAGATTGAAAAGGACACCTTTTAACTCACCTCTCAAGGTGGGC
CTTGCTACCTCAAGGGGGACTGTCTTTCAGATACATGGTTGTGACCTGAGGATTAAGGGATGGAAAAGGAAGAC
TAGAGGCTTGCATAATAAGCTAAAGAGGCTGAAAGAGGCCAATGCCCCACTGGCAGCATCTTCACTTCTAAATGC
ATATCCTGAGCCATCGGTGAAACTAACAGATAAGCAAGAGAGATGTTTTGGGGACTCATTTCATTCCTAACACAG
CATGTGTATTTCCAGTGCAATTGTAGGGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTATGACTAAAGAGAGA
ATGTAGATATTGTGAAGTACATATTAGGAAAATATGGGTTGCATTTGGTCAAGATTTTGAATGCTTCCTGACAAT
CAACTCTAATAGTGCTTAAAAATCATTGATTGTCAGCTACTAATGATGTTTTCCTATAATATAATAAATATTTAT
GTAGATGTGCATTTTTGTGAAATGAAACATGTAATAAAAGTATATGTTAGGATACAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 723

MQQPFNYPYPQIYWVDSSASSPWAPPGTVLPCPTSVPRRPGQRRPPPPPPPPPLPPPPPPPPLPPLPLPPLKKRG
NHSTGLCLLVMFFMVLVALVGLGLGMFQLFHLQKELAELRESTSQMHTASSLEKQIGHPSPPPEKKELRKVAHLT
GKSNSRSMPLEWEDTYGIVLLSGVKYKKGGLVINETGLYFVYSKVYFRGQSCNNLPLSHKVYMRNSKYPQDLVMM
EGKMMSYCTTGQMWARSSYLGAVFNLTSADHLYVNVSELSLVNFEESQTFFGLYKL

FIGURE 724

ACTAAGACCGCAAGGCATTCATTTCCTCCTACGGTGGATGCGGACGCCGGGAGGAGGAGAGCCCCAGAGAGAGGA
GCTGGGAGCGGAGGCGCAGGCAATGCTCAGCCCTGGATGTAGCTGAGAGGCTGGGAGAAGAGACGACCGCTGGAG
ACCGAGCGGCGTGGGGAAGACCTAGGGGGGTGGGTGGGGGAAGCAGACAGGAGAACACTCGAAATCAAGCGCTTT
ACAGATTATTTTATTTTGTATAGAGAACACGTAGCGACTCCGAAGATCAGCCCCA**ATG**AACATGTCAGTGTTGAC
TTTACAAGAATATGAATTCGAAAAGCAGTTCAACGAGAATGAAGCCATCCAATGGATGCAGGAAAACTGGAAGAA
ATCTTTCCTGTTTTCTGCTCTGTATGCTGCCTTTATATTCGGTGGTCGGCACCTAATGAATAAACGAGCAAAGTT
TGAACTGAGGAAGCCATTAGTGCTCTGGTCTCTGACCCTTGCAGTCTTCAGTATATTCGGTGCTCTTCGAACTGG
TGCTTATATGGTGTACATTTTGATGACCAAAGGCCTGAAGCAGTCAGTTTGTGACCAGGGTTTTTACAATGGACC
TGTCAGCAAATTCTGGGCTTATGCATTTGTGCTAAGCAAAGCACCCGAACTAGGAGATACAATATTCATTATTCT
GAGGAAGCAGAAGCTGATCTTCCTGCACTGGTATCACCACATCACTGTGCTCCTGTACTCTTGGTACTCCTACAA
AGACATGGTTGCCGGGGGAGGTTGGTTCATGACTATGAACTATGGCGTGCACGCCGTGATGTACTCTTACTATGC
CTTGCGGGCGGCAGGTTTCCGAGTCTCCCGGAAGTTTGCCATGTTCATCACCTTGTCCCAGATCACTCAGATGCT
GATGGGCTGTGTGGTTAACTACCTGGTCTTCTGCTGGATGCAGCATGACCAGTGTCACTCTCACTTTCAGAACAT
CTTCTGGTCCTCACTCATGTACCTCAGCTACCTTGTGCTCTTCTGCCATTTCTTCTTTGAGGCCTACATCGGCAA
AATGAGGAAAACAACGAAAGCTGAA**TAG**TGTTGGAACTGAGGAGGAAGCCATAGCTCAGGGTCATCAAGAAAAT
AATAGACAAAAGAAAATGGCACAAGGAATCACACGTGGTGCAGCTAAAACAAAACAAAACATGAGCAAACACAAA
ACCCAAGGCAGCTTAGGGATAATTAGGTTGATTTAACCCAGTAAGTTTATGATCCTTTTAGGGTGAGGACTCACT
GAGTGCACCTCCATCTCCAAGCACTGCTGCTGGAAGACCCCATTCCCTCTTTATCTATCAACTCTAGGACAAGGG
AGAACAAAAGCAAGCCAGAAGCAGAGGAGACTAATCAAAGGCAAACAAAGGCTATTAACACATAGGAAAATATGT
ATTTACTAAGTGTCACATTTCTCTAAGATGAAAGATTTTTACTCTAGAAACTGTGCGAGCACAACACACACAATC
CTTTCTAACTTTATGGACACTAAACTGGAGCCAATAGAAAAGACAAAAATGAAAGAGACACAGGGTGTATATCTA
GAACGATAATGCTTTTGCAGAAACTAAAGCCTTTTTAAGAAATGCCAGCTGCTGTAGACCCCATGAGAAAAGATG
TCTTAATCATCCTTATGAAAACAGATGTAAACAACTATATTTCAACTAACTTCATCTTCACTGCATAGCCTCAGG
CTAGTGAGTTTGCCAAAACCAAAGGGGGTGAATACTTCCCCAAGATTCTTCCTGGGAGGATGGAAACAGTGCAGC
CCAGGTCCCATGGGGGCAGCTCCATCCCAGAGCATTTCTGATAGTTGAACTGTAATTTCTACTCTTAAGTGAGAT
ATGAAGTATTATCCTTTTGTTCAGTTGCCCCGGGCTTTTGAACAGAAGAGTAAATACAGAATTGAAAAAGATAAA
CACTCAACCAAACAATGTGAAAACGGGTTCTGTAGTATTTGTAAAAAGGCCCGGCCCAGGACCACTGTGAGCTGG
AAAAGGGAGAAAGGCAGTGGGAAAGAGGTGAGCCGAAGATCAATTCGACAGACAGACGGTGTGTATGCCCCTCC
CTGTTTGACTTCACACACACTCATAACTTTCCAAATGAAACCCCACAGTATAGCGCATATTTTCGATATTTTTGT
GAATTCCAAAAGGAAATCACAGGGCTGTTCGAAATATTGGGGGAACACTGTGTTTCTGCATCATCTGCATTTGCT
CCCCAAGCAATGTAGAGGTGTTTAAAGGGCCCTCTGCTGGCTGAGTGGCAATACTACAACAAACTTCAAGGCAAG
TTTGGCTGAAAACAGTTGACAACAAAGGGCCCCCATACACTTATCCCTCAAATTTTAAGTGATATGAAATACTTG
TCATGTCTTTGGCCAAATCAGAAGATATTCATCCTGCTTCAAGTCAGCTTCAGAAATGTTTAAAAGGGACTTTA
GCTCTGGAACTCAAAATCAATTTATTAAGAGCCATATTCTTTAAAAAAAAAAGCTGGATAATATTATCTGTAATA
TTTCAGTCCTTTACAAGCCAAATACATGTGTCAATGTTCTAGTATTTCAAAGAAGCAATTATGTAAAGTTGTTC
AATGTGACATAATAGTATTATAATTGGTTAAGTAGCTTAATGATTAGGCAAACTAGATGAAAAGATTAGGGGCTT
CCACACTGCATAGATCACACGCACATAGCCACGCATACACACACAGACACACAGATGTGGGGTACACTGAATTTC
AAAGCCCAAATGAATAGAAACACATTTTCTGGCTAGCAGAAAAAAACAAAACAAAACTGTTGTTTCTCTTTCTTG
CTTTGAGAGTGTACAGTAAAAGGGATTTTTTCGAATTATTTTTATATTATTTTAGCTTTAATTGTGCTGTCGTTC
ATGAAACAGAGCTGCTCTGCTTTTCTGTCAGAGATGGCAAGGGCTTTTTCAGCATCTCGTTTATGTGTGGAATTT
AAAAAGAATAAAGTTTTATTCCATTCTGAAAAAAAAAAAAAAAAAA

FIGURE 725

MNMSVLTLQEYEFEKQFNENEAIQWMQENWKKSFLFSALYAAFIFGGRHLMNKRAKFELRKPLVLWSLTLAVFSI
FGALRTGAYMVYILMTKGLKQSVCDQGFYNGPVSKFWAYAFVLSKAPELGDTIFIILRKQKLIFLHWYHHITVLL
YSWYSYKDMVAGGGWFMTMNYGVHAVMYSYYALRAAGFRVSRKFAMFITLSQITQMLMGCVVNYLVFCWMQHDQC
HSHFQNIFWSSLMYLSYLVLFCHFFFEAYIGKMRKTTKAE

FIGURE 726

GACGTTTCGCGCCAATTTCGGTTGGCCGGCCACAGTCCACCGCGCGGAGATTCTCAGCTTCCCCAGGAGCAAGAC
CTCTGAGCCCGCCAAGCGCGGCCGCACGGCCCTCGGCAGCG**ATG**GCACTGAAGGACTACGCGCTAGAGAAGGAAA
AGGTTAAGAAGTTCTTACAAGAGTTCTACCAGGATGATGAACTCGGGAAGAAGCAGTTCAAGTATGGGAACCAGT
TGGTTCGGCTGGCTCATCGGGAACAGGTGGCTCTGTATGTGGACCTGGACGACGTAGCCGAGGATGACCCCGAGT
TGGTGGACTCAATTTGTGAGAATGCCAGGCGCTACGCGAAGCTCTTTGCTGATGCCGTACAAGAGCTGCTGCCTC
AGTACAAGGAGAGGGAAGTGGTAAATAAAGATGTCCTGGACGTTTACATTGAGCATCGGCTAATGATGGAGCAGC
GGAGTCGGGACCCTGGGATGGTCCGAAGCCCCCAGAACCAGTACCCTGCTGAACTCATGCGCAGATTTGAGCTGT
ATTTTCAAGGCCCTAGCAGCAGCAAGCCTCGTGTGATCCGGGAAGTGCGGGCTGACTCTGTGGGGAAGTTGGTAA
CTGTGCGTGGAATCGTCACTCGTGTCTCTGAAGTCAAACCCAAGATGGTGGTGGCCACTTACACTTGTGACCAGT
GTGGGGCAGAGACCTACCAGCCGATCCAGTCTCCCACTTTCATGCCTCTGATCATGTGCCCAAGCCAGGAGTGCC
AAACCAACCGCTCAGGAGGGCGGCTGTATCTGCAGACACGGGGCTCCAGATTCATCAAATTCCAGGAGATGAAGA
TGCAAGAACATAGTGATCAGGTGCCTGTGGGAAATATCCCTCGTAGTATCACGGTGCTGGTAGAAGGAGAGAACA
CAAGGATTGCCCAGCCTGGAGACCACGTCAGCGTCACTGGTATTTTCTTGCCAATCCTGCGCACTGGGTTCCGAC
AGGTGGTACAGGGTTTACTCTCAGAAACCTACCTGGAAGCCCATCGGATTGTGAAGATGAACAAGAGTGAGGATG
ATGAGTCTGGGGCTGGAGAGCTCACCAGGGAGGAGCTGAGGCAAATTGCAGAGGAGGATTTCTACGAAAAGCTGG
CAGCTTCAATCGCCCCAGAAATATACGGGCATGAAGATGTGAAGAAGGCACTGCTGCTCCTGCTAGTCGGGGGTG
TGGACCAGTCTCCTCGAGGCATGAAAATCCGGGGCAACATCAACATCTGTCTGATGGGGGATCCTGGTGTGGCCA
AGTCTCAGCTCCTGTCATACATTGATCGACTGGCGCCTCGCAGCCAGTACACAACAGGCCGGGGCTCCTCAGGAG
TGGGGCTTACGGCAGCTGTGCTGAGAGACTCCGTGAGTGGAGAACTGACCTTAGAGGGTGGGGCCCTGGTGCTGG
CTGACCAGGGTGTGTGCTGCATTGATGAGTTCGACAAGATGGCTGAGGCCGACCGCACAGCCATCCACGAGGTCA
TGGAGCAGCAGACCATCTCCATTGCCAAGGCCGGCATTCTCACCACACTCAATGCCCGCTGCTCCATCCTGGCTG
CCGCCAACCCTGCCTACGGGCGCTACAACCCTCGCCGCAGCCTGGAGCAGAACATACAGCTACCTGCTGCACTGC
TCTCCCGGTTTGACCTCCTCTGGCTGATTCAGGACCGGCCCGACCGAGACAATGACCTACGGTTGGCCCAGCACA
TCACCTATGTGCACCAGCACAGCCGGCAGCCCCCCTCCCAGTTTGAACCTCTGGACATGAAGCTCATGAGGCGTT
ACATAGCCATGTGCCGCGAGAAGCAGCCCATGGTGCCAGAGTCTCTGGCTGACTACATCACAGCAGCATACGTGG
AGATGAGGCGAGAGGCTTGGGCTAGTAAGGATGCCACCTATACTTCTGCCCGGACCCTGCTGGCTATCCTGCGCC
TTTCCACTGCTCTGGCACGTCTGAGAATGGTGGATGTGGTGGAGAAAGAAGATGTGAATGAAGCCATCAGGCTAA
TGGAGATGTCAAAGGACTCTCTTCTAGGAGACAAGGGGCAGACAGCTAGGACTCAGAGACCAGCAGATGTGATAT
TTGCCACCGTCCGTGAACTGGTCTCAGGGGGCCGAAGTGTCCGGTTCTCTGAGGCAGAGCAGCGCTGTGTATCTC
GTGGCTTCACACCCGCCCAGTTCCAGGCGGCTCTGGATGAATATGAGGAGCTCAATGTCTGGCAGGTCAATGCTT
CCCGGACACGGATCACTTTTGTC**TGA**TTCCAGCCTGCTTGCAACCCTGGGGTCCTCTTGTTCCCTGCTGGCCTGC
CCCTTGGGAAGGGGCAGTGATGCCTTTGAGGGGAAGGAGGAGCCCCTCTTTCTCCCATGCTGCACTTACTCCTTT
TGCTAATAAAAGTGTTTGTAGATTGTC

FIGURE 727

MALKDYALEKEKVKKFLQEFYQDDELGKKQFKYGNQLVRLAHREQVALYVDLDDVAEDDPELVDSICENARRYAK
LFADAVQELLPQYKEREVVNKDVLDVYIEHRLMMEQRSRDPGMVRSPQNQYPAELMRRFELYFQGPSSSKPRVIR
EVRADSVGKLVTVRGIVTRVSEVKPKMVVATYTCDQCGAETYQPIQSPTFMPLIMCPSQECQTNRSGGRLYLQTR
GSRFIKFQEMKMQEHSDQVPVGNIPRSITVLVEGENTRIAQPGDHVSVTGIFLPILRTGFRQVVQGLLSETYLEA
HRIVKMNKSEDDESGAGELTREELRQIAEEDFYEKLAASIAPEIYGHEDVKKALLLLLVGGVDQSPRGMKIRGNI
NICLMGDPGVAKSQLLSYIDRLAPRSQYTTGRGSSGVGLTAAVLRDSVSGELTLEGGALVLADQGVCCIDEFDKM
AEADRTAIHEVMEQQTISIAKAGILTTLNARCSILAAANPAYGRYNPRRSLEQNIQLPAALLSRFDLLWLIQDRP
DRDNDLRLAQHITYVHQHSRQPPSQFEPLDMKLMRRYIAMCREKQPMVPESLADYITAAYVEMRREAWASKDATY
TSARTLLAILRLSTALARLRMVDVVEKEDVNEAIRLMEMSKDSLLGDKGQTARTQRPADVIFATVRELVSGGRSV
RFSEAEQRCVSRGFTPAQFQAALDEYEELNVWQVNASRTRITFV

FIGURE 728

GCGGAGCGAGAGGCTGAGAGAGTCGGAGACACTATCCGCTTCCATCCGTCGCGCAGACCCTGCCGGAGCCGCTGC
CGCT**ATG**GATGATCGAGAGGATCTGGTGTACCAGGCGAAGCTGGCCGAGCAGGCTGAGCGATACGACGAAATGGT
GGAGTCAATGAAGAAAGTAGCAGGGATGGATGTGGAGCTGACAGTTGAAGAAAGAAACCTCCTATCTGTTGCATA
TAAGAATGTGATTGGAGCTAGAAGAGCCTCCTGGAGAATAATCAGCAGCATTGAACAGAAAGAAGAAAACAAGGG
AGGAGAAGACAAGCTAAAAATGATTCGGGAATATCGGCAAATGGTTGAGACTGAGCTAAAGTTAATCTGTTGTGA
CATTCTGGATGTACTGGACAAACACCTCATTCCAGCAGCTAACACTGGCGAGTCCAAGGTTTTCTATTATAAAAT
GAAAGGGGACTACCACAGGTATCTGGCAGAATTTGCCACAGGAAACGACAGGAAGGAGGCTGCGGAGAACAGCCT
AGTGGCTTATAAAGCTGCTAGTGATATTGCAATGACAGAACTTCCACCAACGCATCCTATTCGCTTAGGTCTTGC
TCTCAATTTTTCCGTATTCTACTACGAAATTCTTAATTCCCCTGACCGTGCCTGCAGGTTGGCAAAAGCAGCTTT
TGATGATGCAATTGCAGAACTGGATACGCTGAGTGAAGAAAGCTATAAGGACTCTACACTTATCATGCAGTTGTT
ACGTGATAATCTGACACTATGGACTTCAGACATGCAGGGTGACGGTGAAGAGCAGAATAAAGAAGCGCTGCAGGA
CGTGGAAGACGAAATCAG**TGA**GACATAAGCCAACAAGAGAAACCATCTCTGACCACCCCCTCCTCCCCATCCCA
CCCTTTGGAAACTCCCCATTGTCACTGAGAACCACCAAATCTGACTTTTACATTTGGTCTCAGAATTTAGGTTCC
TGCCCTGTTGGTTTTTTTTTTTTTTTTTTAAACAGTTTTCAAAAGTTCTTAAAGGCAAGAGTGAATTTCTGTG
GATTTTACTGGTCCCAGCTTTTAGGTTCTTTAAGACACTAACAGGACTACATAGAGGCTTTTTCAGCATTACTGT
GTCGTCTCCGTGCCAGATGTGGCAAGATCACCATTAGCAAATGGAAATTACATTTGAAAGCCATTAGACTTATAG
GTGATGCAAGCATCTAAGAGAGAGGTTAATCACACTATAGAGGCATAAGTGGTATCAGTTTTCATTTTTCTAATT
GTTTAAACTGTGTTTTATACCAGTGTTTGCAAGTAATTGGGTGTTAGCTTGAGATGGTTAAAGGTGGTTTGGGGA
GGGACTTCGTTGTAATGGTTTTGCTGTAAAAAATGTTTCCAACTCCGCTGAAATGTTGCTGAAAAGCATGGTGCT
GGTAACAGTTCAACAATCCGTGGCTGCTCATTCTTGCCTACTTTACTCTCCCACTGAAGCAGGTTAGCGTTGAAG
GTGGTATGGAAAAGCCTGCATGCCTGTTCAATTCTTTTGTTTCTTCTCCTTCCCCCTCCCCCTACCTCCTTCCCC
TCACTCCTCCCCTCCTTCGCTCGCTCAACCTCTTTTGTTCAGTATGTGTAACTTGAAGCTAATTTGTACTACTGG
ATATCTGACTGGAGCCACAGATACAGAATCTGTATTGTTCTTACTGAAACACAGCATGGAATTAACATTAAACTT
AAATAAAACAAACCTAAATTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 729

MDDREDLVYQAKLAEQAERYDEMVESMKKVAGMDVELTVEERNLLSVAYKNVIGARRASWRIISSIEQKEENKGG
EDKLKMIREYRQMVETELKLICCDILDVLDKHLIPAANTGESKVFYYKMKGDYHRYLAEFATGNDRKEAAENSLV
AYKAASDIAMTELPPTHPIRLGLALNFSVFYYEILNSPDRACRLAKAAFDDAIAELDTLSEESYKDSTLIMQLLR
DNLTLWTSDMQGDGEEQNKEALQDVEDENQ

FIGURE 730

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GGCACGAGGGGCGGCGGAGCCGACTCGTCGCGGCCGAGGCGCACGCGGTCCGCGCCGGCGTCAGTCTGGGATTGG
CCGGCCCGCGACTTCCTCCGCCCCCTGCCAATCGCCGGGGACGACTTCCGTGGGTTTTTCCGGCTCTCCCGCGTC
GCTAAGGAGCGACGGGCTGTCGGCCAGACCCCGAGTTCTCGGTGCGCTCAGCGGCCGCCGACGCTAGGAGGCCGC
GCTCCGCCCCCGCTACCATGAGGCCCCGGAAAGCCTTCCTGCTCCTGCTGCTCTTGGGGCTGGTGCAGCTGCTGG
CCGTGGCGGGTGCCGAGGGCCCGGACGAGGATTCTTCTAACAGAGAAAATGCCATTGAGGATGAAGAGGAGGAGG
AGGAGGAAGATGATGATGAGGAAGAAGACGACTTGGAAGTTAAGGAAGAAAATGGAGTCTTGGTCCTAAATGATG
CAAACTTTGATAATTTTGTGGCTGACAAAGACACAGTGCTGCTGGAGTTTTATGCTCCATGGTGTGGACATTGCA
AGCAGTTTGCTCCGGAATATGAAAAAATTGCCAACATATTAAAGGATAAAGATCCTCCCATTCCTGTTGCCAAGA
TCGATGCAACCTCAGCGTCTGTGCTGGCCAGCAGGTTTGATGTGAGTGGCTACCCCACCATCAAGATCCTTAAGA
AGGGGCAGGCTGTAGACTACGAGGGCTCCAGAACCCAGGAAGAAATTGTTGCCAAGGTCAGAGAAGTCTCCCAGC
CCGACTGGACGCCTCCACCAGAAGTCACGCTTGTGTTGACCAAAGAGAACTTTGATGAAGTTGTGAATGATGCAG
ATATCATTCTGGTGGAGTTTTATGCCCCATGGTGTGGACACTGCAAGAAACTTGCCCCCGAGTATGAGAAGGCCG
CCAAGGAGCTCAGCAAGCGTTCTCCTCCAATTCCCCTGGCAAAGGTCGACGCCACCGCAGAAACAGACCTGGCCA
AGAGGTTTGATGTCTCTGGCTATCCCACCCTGAAAATTTTCCGCAAAGGAAGGCCTTATGACTACAACGGCCCAC
GAGAAAAATATGGAATCGTTGATTACATGATCGAGCAGTCCGGGCCTCCCTCCAAGGAGATTCTGACCCTGAAGC
AGGTCCAGGAGTTCCTGAAGGATGGAGACGATGTCATCATCATCGGGGTCTTTAAGGGGGAGAGTGACCCAGCCT
ACCAGCAATACCAGGATGCCGCTAACAACCTGAGAGAAGATTACAAATTTCACCACACTTTCAGCACAGAAATAG
CAAAGTTCTTGAAAGTCTCCCAGGGGCAGTTGGTTGTAATGCAGCCTGAGAAATTCCAGTCCAAGTATGAGCCCC
GGAGCCACATGATGGACGTCCAGGGCTCCACCCAGGACTCGGCCATCAAGGACTTCGTGCTGAAGTACGCCCTGC
CCCTGGTTGGCCACCGCAAGGTGTCAAACGATGCTAAGCGCTACACCAGGCGCCCCCTGGTGGTCGTCTACTACA
GTGTGGACTTCAGCTTTGATTACAGAGCTGCAACTCAGTTTTGGCGGAGCAAAGTCCTAGAGGTGGCCAAGGACT
TCCCTGAGTACACCTTTGCCATTGCGGACGAAGAGGACTATGCTGGGGAGGTGAAGGACCTGGGGCTCAGCGAGA
GTGGGGAGGATGTCAATGCCGCCATCCTGGACGAGAGTGGGAAGAAGTTCGCCATGGAGCCAGAGGAGTTTGACT
CTGACACCCTCCGCGAGTTTGTCACTGCTTTCAAAAAAGGAAAACTGAAGCCAGTCATCAAATCCCAGCCAGTGC
CCAAGAACAACAAGGGACCCGTCAAGGTCGTGGTGGGAAAGACCTTTGACTCCATTGTGATGGACCCCAAGAAGG
ACGTCCTCATCGAGTTCTACGCACCATGGTGCGGGCACTGCAAGCAGCTAGAGCCCGTGTACAACAGCCTGGCCA
AGAAGTACAAGGGCCAAAAGGGCCTGGTCATCGCCAAGATGGACGCCACTGCCAACGACGTCCCCAGCGACCGCT
ATAAGGTGGAGGGCTTCCCCACCATCTACTTCGCCCCCAGTGGGGACAAAAAGAACCCAGTTAAATTTGAGGGTG
GAGACAGAGATCTGGAGCATTTGAGCAAGTTTATAGAAGAACATGCCACAAAACTGAGCAGGACCAAGGAAGAGC
TTTGAAGGCCTGAGGTCTGCGGAAGGTGGGAGGAGGCAGACACCCTGCGTGGCCCATGGTCGGGGCGTCCACGCC
GAGGCCGGCAACAAACGACAGTATCTCGGATTCCTTTTTTTTTTTTTTTTAATTTTTTATACTTTGGTGTTTCAC
TTCATGCTCTGAATACTGAATAACCATGAATGACTGAATAGTTTAGTCCAGATTTTTACAGAGGATACATCTATT
TTTATCATTATTTGGGGTTTGAAAAATTTTTTTTTACACCTTCTAATTTCTTTATTTCTCAAAGCAGATAATTCT
TCTGTGTGAAAATGTTTTCTTTTTTTAATTTAAGGTTTAAAATTCCTTTGCCAAATCATGTTGATTTTGCTCTTT
GCTTTTTCGTTGTCTGAGAAATTGTTGGCGTAGATTTGGCTTCTGGTATGTGTTTCTGATTGCTTCCTGTTGAGC
ACAAAGTGAGAGCTGCCACTGAGCAGCCCTGCCAGGGGTGCTGTTTCAGGCTGGGCATCGCCAGGCGGCCTCCCT
GCAAACCAAGGGCTGGGGGCAAAGGGGCATGATCCAGGGTCCCCCAGGGTGGGCTCAGCTCCAGGGAGAGGCCAC
CCACGTGGCAGCCCCACCTCTTGAGAGCCCCCAGTGCCGGAGCAGAAAGGACCCTGGACCCAGAGGCAGATACTG
CGGGGTGGTAGAAAAGGTAGAGTAGGCTGTGGCAATGGAATAAAACACGATTAAAAACGTTAAAAAAAAAAAAAA
AAAAA
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FIGURE 731

MRPRKAFLLLLLLGLVQLLAVAGAEGPDEDSSNRENAIEDEEEEEEDDDEEEDDLEVKEENGVLVLNDANFDNF
VADKDTVLLEFYAPWCGHCKQFAPEYEKIANILKDKDPPIPVAKIDATSASVLASRFDVSGYPTIKILKKGQAVD
YEGSRTQEEIVAKVREVSQPDWTPPPEVTLVLTKENFDEVVNDADIILVEFYAPWCGHCKKLAPEYEKAAKELSK
RSPPIPLAKVDATAETDLAKRFDVSGYPTLKIFRKGRPYDYNGPREKYGIVDYMIEQSGPPSKEILTLKQVQEFL
KDGDDVIIIGVFKGESDPAYQQYQDAANNLREDYKFHHTFSTEIAKFLKVSQGQLVVMQPEKFQSKYEPRSHMMD
VQGSTQDSAIKDFVLKYALPLVGHRKVSNDAKRYTRRPLVVVYYSVDFSFDYRAATQFWRSKVLEVAKDFPEYTF
AIADEEDYAGEVKDLGLSESGEDVNAAILDESGKKFAMEPEEFDSDTLREFVTAFKKGKLKPVIKSQPVPKNNKG
PVKVVVGKTFDSIVMDPKKDVLIEFYAPWCGHCKQLEPVYNSLAKKYKGQKGLVIAKMDATANDVPSDRYKVEGF
PTIYFAPSGDKKNPVKFEGGDRDLEHLSKFIEEHATKLSRTKEEL

FIGURE 732

AGGTTCTCTTACATCGACCGCCTAAGAGTCGCGCTGTAAGAAGCAACAACCTCTCCTCTTCGTCTCCGCCATCAG
CTCGGCAGTCGCGAAGCAGCAACC**ATG**CGTGAGTGCATCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGC
AATGCCTGCTGGGAGCTCTACTGCCTGGAACACGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATT
GGGGGAGGAGATGATTCCTTCAACACCTTCTTCAGTGAGACGGGGGGCTGGCAAGCATGTGCCCCGGGCAGTGTTT
GTAGACTTGGAACCCACAGTCATTGATGAAGTTCGCACTGGCACCTACCGCCAGCTCTTCCACCCTGAGCAACTT
ATCACAGGCAAAGAAGATGCTGCCAATAACTATGCCCGAGGGCACTACACCATTGGCAAGGAGATCATTGACCTC
GTGTTGGACCGAATTCGCAAGCTGGCCGACCAGTGCACGGGTCTCCAGGGCTTCTTGGTTTTCCACAGCTTTGGT
GGGGGAACTGGTTCTGGGTTCACCTCGCTGCTCATGGAACGTCTCTCAGTTGATTATGGCAAGAAGTCCAAGCTG
GAGTTCTCTATTTACCCGGCGCCCCAGGTTTCCACAGCTGTAGTTGAGCCCTACAACTCCATCCTCACCACCCAC
ACCACCCTGGAGCACTCTGATTGTGCCTTCATGGTAGACAATGAGGCCATCTATGACATCTGTCGTAGAAACCTC
GATATTGAGCGTCCAACCTATACTAACCTGAATAGGTTAATAGGTCAAATTGTGTCCTCCATCACTGCTTCCCTG
AGATTTGATGGAGCCCTGAATGTTGACCTGACAGAATTCCAGACCAACCTGGTGCCCTATCCCCGCATCCACTTC
CCTCTGGCCACATATGCCCCTGTCATCTCTGCTGAGAAAGCCTACCATGAACAGCTTTCTGTAGCAGAGATCACC
AATGCTTGCTTTGAGCCAGCCAACCAGATGGTGAAATGTGACCCTCGCCATGGTAAATACATGGCTTGCTGCCTG
TTGTACCGTGGTGACGTGGTTCCCAAAGATGTCAATGCTGCCATTGCCACCATCAAGACCAAGCGTACCATCCAG
TTTGTGGATTGGTGCCCCACTGGCTTCAAGGTTGGCATCAACTACCAGCCTCCCACTGTGGTGCCTGGTGGAGAC
CTGGCCAAGGTACAGAGAGCTGTGTGCATGCTGAGCAACACCACAGCCATTGCTGAGGCCTGGGCTCGCCTGGAC
CACAAGTTTGACCTGATGTATGCCAAACGTGCCTTTGTTCACTGGTACGTTGGGGAGGGGATGGAGGAAGGTGAG
TTTTCAGAGGCCCGTGAGGACATGGCTGCCCTTGAGAAGGATTATGAGGAGGTTGGTGTGGATTCTGTTGAAGGA
GAGGGTGAGGAAGAAGGAGAGGAATAC**TAA**AGTTAAAACGTCACAAAGGTGCTGCTTTTACAGGGAAGCTTATTC
TGTTTTAAACATTGAAAAGTTGTGGTCTGATCAGTTAATTTGTATGTAGCAGTGTATGCTCTCATATACAATTAC
TGACCTATGCTCTAAAACATGAATGCTTTGTTACAGACCCAAGCTGTCCATTTCTGTGATGGGTTTTGAATAAAG
TATTCCCTGTCTTAAAAAAAAAAAAAA

FIGURE 733

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDLEPTVI
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIRKLADQCTGLQGFLVFHSFGGGTGSGFT
SLLMERLSVDYGKKSKLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT
NLNRLIGQIVSSITASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISAEKAYHEQLSVAEITNACFEPAN
QMVKCDPRHGKYMACCLLYRGDVVPKDVNAAIATIKTKRTIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV
CMLSNTTAIAEAWARLDHKFDLMYAKRAFVHWYVGEGMEEGEFSEAREDMAALEKDYEEVGVDSVEGEGEEEGEE
Y

FIGURE 734

AGGTTCTCTTACATCGACCGCCTAAGAGTCGCGCTGTAAGAAGCAACAACCTCTCCTCTTCGTCTCCGCCATCAG
CTCGGCAGTCGCGAAGCAGCAACC**ATG**CGTGAGTGCATCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGC
AATGCCTGCTGGGAGCTCTACTGCCTGGAACACGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATT
GGGGGAGGAGATGATTCCTTCAACACCTTCTTCAGTGAGACGGGGGGCTGGCAAGCATGTGCCCCGGGCAGTGTTT
GTAGACTTGGAACCCACAGTCATTGATGAAGTTCGCACTGGCACCTACCGCCAGCTCTTCCACCCTGAGCAACTT
ATCACAGGCAAAGAAGATGCTGCCAATAACTATGCCCGAGGGCACTACACCATTGGCAAGGAGATCATTGACCTC
GTGTTGGACCGAATTCGCAAGCTGGCCGACCAGTGCACGGGTCTCCAGGGCTTCTTGGTTTTCCACAGCTTTGGT
GGGGGAACTGGTTCTGGGTTCACCTCGCTGCTCATGGAACGTCTCTCAGTTGATTATGGCAAGAAGTCCAAGCTG
GAGTTCTCTATTTACCCGGCGCCCCAGGTTTCCACAGCTGTAGTTGAGCCCTACAACTCCATCCTCACCACCCAC
ACCACCCTGGAGCACTCTGATTGTGCCTTCATGGTAGACAATGAGGCCATCTATGACATCTGTCGTAGAAACCTC
GATATTGAGCGTCCAACCTATACTAACCTGAATAGGTTAATAGGTCAAATTGTGTCCTCCATCACTGCTTCCCTG
AGATTTGATGGAGCCCTGAATGTTGACCTGACAGAATTCCAGACCAACCTGGTGCCCTATCCCCGCATCCACTTC
CCTCTGGCCACATATGCCCCTGTCATCTCTGCTGAGAAAGCCTACCATGAACAGCTTTCTGTAGCAGAGATCACC
AATGCTTGCTTTGAGCCAGCCAACCAGATGGTGAAATGTGACCCTCGCCATGGTAAATACATGGCTTGCTGCCTG
TTGTACCGTGGTGACGTGGTTCCCAAAGATGTCAATGCTGCCATTGCCACCATCAAGACCAAGCGTACCATCCAG
TTTGTGGATTGGTGCCCCACTGGCTTCAAGGTTGGCATCAACTACCAGCCTCCCACTGTGGTGCCTGGTGGAGAC
CTGGCCAAGGTACAGAGAGCTGTGTGCATGCTGAGCAACACCACAGCCATTGCTGAGGCCTGGGCTCGCCTGGAC
CACAAGTTTGACCTGATGTATGCCAAACGTGCCTTTGTTCACTGGTACGTTGGGGAGGGGATGGAGGAAGGTGAG
TTTTCAGAGGCCCGTGAGGACATGGCTGCCCTTGAGAAGGATTATGAGGAGGTTGGTGTGGATTCTGTTGAAGGA
GAGGGTGAGGAAGAAGGAGAGGAATAC**TAA**AGTTAAAACGTCACAAAGGTGCTGCTTTTACAGGGAAGCTTATTC
TGTTTTAAACATTGAAAAGTTGTGGTCTGATCAGTTAATTTGTATGTAGCAGTGTATGCTCTCATATACAATTAC
TGACCTATGCTCTAAAACATGAATGCTTTGTTACAGACCCAAGCTGTCCATTTCTGTGATGGGTTTTGAATAAAG
TATTCCCTGTCTTAAAAAAAAAAAAAAA

FIGURE 735

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDLEPTVI
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIRKLADQCTGLQGFLVFHSFGGGTGSGFT
SLLMERLSVDYGKKSKLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT
NLNRLIGQIVSSITASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISAEKAYHEQLSVAEITNACFEPAN
QMVKCDPRHGKYMACCLLYRGDVVPKDVNAAIATIKTKRTIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV
CMLSNTTAIAEAWARLDHKFDLMYAKRAFVHWYVGEGMEEGEFSEAREDMAALEKDYEEVGVDSVEGEGEEEGEE
Y

FIGURE 736

GAGGTGTTTCCCTTAGCTATGGAAACTCTATAAGAGAGATCCAGCTTGCCTCCTCTTGAGCAGTCAGCAACAGGG
TCCCGTCCTTGACACCTCAGCCTCTACAGGACTGAGAAGAAGTAAAACCGTTTGCTGGGGCTGGCCTGACTCACC
AGCTGCC**ATG**CAGCAGCCCTTCAATTACCCATATCCCCAGATCTACTGGGTGGACAGCAGTGCCAGCTCTCCCTG
GGCCCCTCCAGGCACAGTTCTTCCCTGTCCAACCTCTGTGCCCAGAAGGCCTGGTCAAAGGAGGCCACCACCACC
ACCGCCACCGCCACCACTACCACCTCCGCCGCCGCCGCCACCACTGCCTCCACTACCGCTGCCACCCCTGAAGAA
GAGAGGGAACCACAGCACAGGCCTGTGTCTCCTTGTGATGTTTTTCATGGTTCTGGTTGCCTTGGTAGGATTGGG
CCTGGGGATGTTTCAGCTCTTCCACCTACAGAAGGAGCTGGCAGAACTCCGAGAGTCTACCAGCCAGATGCACAC
AGCATCATCTTTGGAGAAGCAAATAGGCCACCCCAGTCCACCCCCTGAAAAAAAGGAGCTGAGGAAAGTGGCCCA
TTTAACAGGCAAGTCCAACTCAAGGTCCATGCCTCTGGAATGGGAAGACACCTATGGAATTGTCCTGCTTTCTGG
AGTGAAGTATAAGAAGGGTGGCCTTGTGATCAATGAAACTGGGCTGTACTTTGTATATTCCAAAGTATACTTCCG
GGGTCAATCTTGCAACAACCTGCCCCTGAGCCACAAGGTCTACATGAGGAACTCTAAGTATCCCCAGGATCTGGT
GATGATGGAGGGGAAGATGATGAGCTACTGCACTACTGGGCAGATGTGGGCCCGCAGCAGCTACCTGGGGGCAGT
GTTCAATCTTACCAGTGCTGATCATTTATATGTCAACGTATCTGAGCTCTCTCTGGTCAATTTTGAGGAATCTCA
GACGTTTTTCGGCTTATATAAGCTC**TAA**GAGAAGCACTTTGGGATTCTTTCCATTATGATTCTTTGTTACAGGCA
CCGAGAATGTTGTATTCAGTGAGGGTCTTCTTACATGCATTTGAGGTCAAGTAAGAAGACATGAACCAAGTGGAC
CTTGAGACCACAGGGTTCAAAATGTCTGTAGCTCCTCAACTCACCTAATGTTTATGAGCCAGACAAATGGAGGAA
TATGACGGAAGAACATAGAACTCTGGGCTGCCATGTGAAGAGGGAGAAGCATGAAAAAGCAGCTACCAGGTGTTC
TACACTCATCTTAGTGCCTGAGAGTATTTAGGCAGATTGAAAAGGACACCTTTTAACTCACCTCTCAAGGTGGGC
CTTGCTACCTCAAGGGGGACTGTCTTTCAGATACATGGTTGTGACCTGAGGATTTAAGGGATGGAAAAGGAAGAC
TAGAGGCTTGCATAATAAGCTAAAGAGGCTGAAAGAGGCCAATGCCCCACTGGCAGCATCTTCACTTCTAAATGC
ATATCCTGAGCCATCGGTGAAACTAACAGATAAGCAAGAGAGATGTTTTGGGGACTCATTTCATTCCTAACACAG
CATGTGTATTTCCAGTGCAATTGTAGGGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTATGACTAAAGAGAGA
ATGTAGATATTGTGAAGTACATATTAGGAAAATATGGGTTGCATTTGGTCAAGATTTTGAATGCTTCCTGACAAT
CAACTCTAATAGTGCTTAAAAATCATTGATTGTCAGCTACTAATGATGTTTTCCTATAATATAATAAATATTTAT
GTAGATGTGCATTTTTGTGAAATGAAAACATGTAATAAAAGTATATGTTAGGATACAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 737

MQQPFNYPYPQIYWVDSSASSPWAPPGTVLPCPTSVPRRPGQRRPPPPPPPPPLPPPPPPPPLPPLPLPPLKKRG
NHSTGLCLLVMFFMVLVALVGLGLGMFQLFHLQKELAELRESTSQMHTASSLEKQIGHPSPPPEKKELRKVAHLT
GKSNSRSMPLEWEDTYGIVLLSGVKYKKGGLVINETGLYFVYSKVYFRGQSCNNLPLSHKVYMRNSKYPQDLVMM
EGKMMSYCTTGQMWARSSYLGAVFNLTSADHLYVNVSELSLVNFEESQTFFGLYKL

FIGURE 738

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GTAGATAGTCAGATGTCTTTTGAAAATGTGTTTTCGGTGTGGAATATTAACCCAATCTTTGATAACTCTTCCAGA
ACCTTCGGCTCGCGTGCTTCTGAGCTGCTGTGGATGGCCTCGGCTCTCTGGACTGTCCTTCCGAGTAGGATGTCA
CTGAGATCCCTCAAATGGAGCCTCCTGCTGCTGTCACTCCTGAGTTTCTTTGTGATGTGGTACCTCAGCCTTCCC
CACTACAATGTGATAGAACGCGTGAACTGGATGTACTTCTATGAGTATGAGCCGATTTACAGACAAGACTTTCAC
TTCACACTTCGAGAGCATTCAAACTGCTCTCATCAAAATCCATTTCTGGTCATTCTGGTGACCTCCCACCCTTCA
GATGTGAAAGCCAGGCAGGCCATTAGAGTTACTTGGGGTGAAAAAAAGTCTTGGTGGGGATATGAGGTTCTTACA
TTTTTCTTATTAGGCCAAGAGGCTGAAAAGGAAGACAAAATGTTGGCATTGTCCTTAGAGGATGAACACCTTCTT
TATGGTGACATAATCCGACAAGATTTTTTAGACACATATAATAACCTGACCTTGAAAACCATTATGGCATTCAGG
TGGGTAACTGAGTTTTGCCCCAATGCCAAGTACGTAATGAAGACAGACACTGATGTTTTCATCAATACTGGCAAT
TTAGTGAAGTATCTTTTAAACCTAAACCACTCAGAGAAGTTTTTCACAGGTTATCCTCTAATTGATAATTATTCC
TATAGAGGATTTTACCAAAAAACCCATATTTCTTACCAGGAGTATCCTTTCAAGGTGTTCCCTCCATACTGCAGT
GGGTTGGGTTATATAATGTCCAGAGATTTGGTGCCAAGGATCTATGAAATGATGGGTCACGTAAAACCCATCAAG
TTTGAAGATGTTTATGTCGGGATCTGTTTGAATTTATTAAAAGTGAACATTCATATTCCAGAAGACACAAATCTT
TTCTTTCTATATAGAATCCATTTGGATGTCTGTCAACTGAGACGTGTGATTGCAGCCCATGGCTTTTCTTCCAAG
GAGATCATCACTTTTTGGCAGGTCATGCTAAGGAACACCACATGCCATTATTAACTTCACATTCTACAAAAAGCC
TAGAAGGACAGGATACTTTGTGGAAAGTGTTAAATAAAGTAGGTACTGTGGAAAATTCATGGGGAGGTCAGTGTG
CTGGCTTACACTGAACTGAAACTCATGAAAAACCCAGACTGGAGACTGGAGGGTTACACTTGTGATTTATTAGTC
AGGCCCTTCAAAGATGATATGTGGAGGAATTAAATATAAAGGAATTGGAGGTTTTTGCTAAAGAAATTAATAGGA
CCAAACAATTTGGACATGTCATTCTGTAGACTAGAATTTCTTAAAAGGGTGTTACTGAATTATAAGCTCACTAGG
CTGTAAAAACAAAACAATGTAGAGTTTTATTTATTGAACAATGTAGTCACTTGAAGGTTTTGTGTATATCTTATG
TGGATTACCAATTTAAAAATATATGTAGTTCTGTGTCAAAAAACTTCTTCACTGAAGTTATACTGAACAAAATTT
TACCTGTTTTTGGTCATTTATAAAGTACTTCAAGATGTTGCAGTATTTCACAGTTATTATTATTTAAAATTACTT
CAACTTTGTGTTTTTAAATGTTTTGACGATTTCAATACAAGATAAAAAGGATAGTGAATCATTCTTTACATGCAA
ACATTTTCCAGTTACTTAACTGATCAGTTTATTATTGATACATCACTCCATTAATGTAAAGTCATAGGTCATTAT
TGCACATCAGTAATCTCTTGGACTTTGTTAAATATTTTACTGTGGTAATATAGAGAAGAATTAAAGCAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAA
```

FIGURE 739

MASALWTVLPSRMSLRSLKWSLLLLSLLSFFVMWYLSLPHYNVIERVNWMYFYEYEPIYRQDFHFTLREHSNCSH
QNPFLVILVTSHPSDVKARQAIRVTWGEKKSWWGYEVLTFFLLGQEAEKEDKMLALSLEDEHLLYGDIIRQDFLD
TYNNLTLKTIMAFRWVTEFCPNAKYVMKTDTDVFINTGNLVKYLLNLNHSEKFFTGYPLIDNYSYRGFYQKTHIS
YQEYPFKVFPPYCSGLGYIMSRDLVPRIYEMMGHVKPIKFEDVYVGICLNLLKVNIHIPEDTNLFFLYRIHLDVC
QLRRVIAAHGFSSKEIITFWQVMLRNTTCHY

FIGURE 740A

ATTTCCCGCCAGCAGGAGCCGCGCGGTAGATGCGGTGCTTTTAGGAGCTCCGTCCGACAGAACGGTTGGGCCTTG
CCGGCTGTCGGT**ATG**TCGCGACAGAGCACCCTGTACAGCTTCTTCCCCAAGTCTCCGGCGCTGAGTGATGCCAAC
AAGGCCTCGGCCAGGGCCTCACGCGAAGGCGGCCGTGCCGCCGCTGCCCCCGGGGCCTCTCCTTCCCCAGGCGGG
GATGCGGCCTGGAGCGAGGCTGGGCCTGGGCCCAGGCCCTTGGCGCGATCCGCGTCACCGCCCAAGGCGAAGAAC
CTCAACGGAGGGCTGCGGAGATCGGTAGCGCCTGCTGCCCCCACCAGTTGTGACTTCTCACCAGGAGATTTGGTT
TGGGCCAAGATGGAGGGTTACCCCTGGTGGCCTTGTCTGGTTTACAACCACCCCTTTGATGGAACATTCATCCGC
GAGAAAGGGAAATCAGTCCGTGTTCATGTACAGTTTTTTGATGACAGCCCAACAAGGGGCTGGGTTAGCAAAAGG
CTTTTAAAGCCATATACAGGTTCAAAATCAAAGGAAGCCCAGAAGGGAGGTCATTTTTACAGTGCAAAGCCTGAA
ATACTGAGAGCAATGCAACGTGCAGATGAAGCCTTAAATAAAGACAAGATTAAGAGGCTTGAATTGGCAGTTTGT
GATGAGCCCTCAGAGCCAGAAGAGGAAGAAGAGATGGAGGTAGGCACAACTTACGTAACAGATAAGAGTGAAGAA
GATAATGAAATTGAGAGTGAAGAGGAAGTACAGCCTAAGACACAAGGATCTAGGCGAAGTAGCCGCCAAATAAAA
AAACGAAGGGTCATATCAGATTCTGAGAGTGACATTGGTGGCTCTGATGTGGAATTTAAGCCAGACACTAAGGAG
GAAGGAAGCAGTGATGAAATAAGCAGTGGAGTGGGGGATAGTGAGAGTGAAGGCCTGAACAGCCCTGTCAAAGTT
GCTCGAAAGCGGAAGAGAATGGTGACTGGAAATGGCTCTCTTAAAAGGAAAAGCTCTAGGAAGGAAACGCCCTCA
GCCACCAAACAAGCAACTAGCATTTCATCAGAAACCAAGAATACTTTGAGAGCTTTCTCTGCCCCTCAAAATTCT
GAATCCCAAGCCCACGTTAGTGGAGGTGGTGATGACAGTAGTCGCCCTACTGTTTGGTATCATGAAACTTTAGAA
TGGCTTAAGGAGGAAAAGAGAAGAGATGAGCACAGGAGGAGGCCTGATCACCCCGATTTTGATGCATCTACACTC
TATGTGCCTGAGGATTTCCTCAATTCTTGTACTCCTGGGATGAGGAAGTGGTGGCAGATTAAGTCTCAGAACTTT
GATCTTGTCATCTGTTACAAGGTGGGGAAATTTTATGAGCTGTACCACATGGATGCTCTTATTGGAGTCAGTGAA
CTGGGGCTGGTATTCATGAAAGGCAACTGGGCCCATTCTGGCTTTCCTGAAATTGCATTTGGCCGTTATTCAGAT
TCCCTGGTGCAGAAGGGCTATAAAGTAGCACGAGTGGAACAGACTGAGACTCCAGAAATGATGGAGGCACGATGT
AGAAAGATGGCACATATATCCAAGTATGATAGAGTGGTGAGGAGGGAGATCTGTAGGATCATTACCAAGGGTACA
CAGACTTACAGTGTGCTGGAAGGTGATCCCTCTGAGAACTACAGTAAGTATCTTCTTAGCCTCAAAGAAAAAGAG
GAAGATTCTTCTGGCCATACTCGTGCATATGGTGTGTGCTTTGTTGATACTTCACTGGGAAAGTTTTTCATAGGT
CAGTTTTCAGATGATCGCCATTGTTCGAGATTTAGGACTCTAGTGGCACACTATCCCCCAGTACAAGTTTTATTT
GAAAAAGGAAATCTCTCAAAGGAAACTAAAACAATTCTAAAGAGTTCATTGTCCTGTTCTCTTCAGGAAGGTCTG
ATACCCGGCTCCCAGTTTTGGGATGCATCCAAAACTTTGAGAACTCTCCTTGAGGAAGAATATTTTAGGGAAAAG
CTAAGTGATGGCATTGGGGTGATGTTACCCCAGGTGCTTAAAGGTATGACTTCAGAGTCTGATTCCATTGGGTTG
ACACCAGGAGAGAAAGTGAATTGGCCCTCTCTGCTCTAGGTGGTTGTGTCTTCTACCTCAAAAAATGCCTTATT
GATCAGGAGCTTTTATCAATGGCTAATTTTGAAGAATATATTCCCTTGGATTCTGACACAGTCAGCACTACAAGA
TCTGGTGCTATCTTCACCAAAGCCTATCAACGAATGGTGCTAGATGCAGTGACATTAAACAACTTGGAGATTTTT
CTGAATGGAACAAATGGTTCTACTGAAGGAACCCTACTAGAGAGGGTTGATACTTGCCATACTCCTTTTGGTAAG
CGGCTCCTAAAGCAATGGCTTTGTGCCCCACTCTGTAACCATTATGCTATTAATGATCGTCTAGATGCCATAGAA
GACCTCATGGTTGTGCCTGACAAAATCTCCGAAGTTGTAGAGCTTCTAAAGAAGCTTCCAGATCTTGAGAGGCTA
CTCAGTAAAATTCATAATGTTGGGTCTCCCCTGAAGAGTCAGAACCACCCAGACAGCAGGGCTATAATGTATGAA
GAAACTACATACAGCAAGAAGAAGATTATTGATTTTCTTTCTGCTCTGGAAGGATTCAAAGTAATGTGTAAAATT
ATAGGGATCATGGAAGAAGTTGCTGATGGTTTTAAGTCTAAAATCCTTAAGCAGGTCATCTCTCTGCAGACAAAA
AATCCTGAAGGTCGTTTTCCTGATTTGACTGTAGAATTGAACCGATGGGATACAGCCTTTGACCATGAAAAGGCT
CGAAAGACTGGACTTATTACTCCCAAAGCAGGCTTTGACTCTGATTATGACCAAGCTCTTGCTGACATAAGAGAA
AATGAACAGAGCCTCCTGGAATACCTAGAGAAACAGCGCAACAGAATTGGCTGTAGGACCATAGTCTATTGGGGG
ATTGGTAGGAACCGTTACCAGCTGGAAATTCCTGAGAATTTCACCACTCGCAATTTGCCAGAAGAATACGAGTTG
AAATCTACCAAGAAGGGCTGTAAACGATACTGGACCAAAACTATTGAAAAGAAGTTGGCTAATCTCATAAATGCT
GAAGAACGGAGGGATGTATCATTGAAGGACTGCATGCGGCGACTGTTCTATAACTTTGATAAAAATTACAAGGAC
TGGCAGTCTGCTGTAGAGTGTATCGCAGTGTTGGATGTTTTACTGTGCCTGGCTAACTATAGTCGAGGGGGTGAT
GGTCCTATGTGTCGCCCAGTAATTCTGTTGCCGGAAGATACCCCCCCCTTCTTAGAGCTTAAAGGATCACGCCAT
CCTTGCATTACGAAGACTTTTTTTGGAGATGATTTATTCCTAATGACATTCTAATAGGCTGTGAGGAAGAGGAG
CAGGAAAATGGCAAAGCCTATTGTGTGCTTGTTACTGGACCAAATATGGGGGGCAAGTCTACGCTTATGAGACAG
GCTGGCTTATTAGCTGTAATGGCCCAGATGGGTTGTTACGTCCCTGCTGAAGTGTGCAGGCTCACACCAATTGAT

FIGURE 740B

AGAGTGTTTACTAGACTTGGTGCCTCAGACAGAATAATGTCAGGTGAAAGTACATTTTTTGTTGAATTAAGTGAA
ACTGCCAGCATACTCATGCATGCAACAGCACATTCTCTGGTGCTTGTGGATGAATTAGGAAGAGGTACTGCAACA
TTTGATGGGACGGCAATAGCAAATGCAGTTGTTAAAGAACTTGCTGAGACTATAAAATGTCGTACATTATTTTCA
ACTCACTACCATTCATTAGTAGAAGATTATTCTCAAAATGTTGCTGTGCGCCTAGGACATATGGCATGCATGGTA
GAAAATGAATGTGAAGACCCCAGCCAGGAGACTATTACGTTCCTCTATAAATTCATTAAGGGAGCTTGTCCTAAA
AGCTATGGCTTTAATGCAGCAAGGCTTGCTAATCTCCCAGAGGAAGTTATTCAAAAGGGACATAGAAAAGCAAGA
GAATTTGAGAAGATGAATCAGTCACTACGATTATTTCGGGAAGTTTGCCTGGCTAGTGAAAGGTCAACTGTAGAT
GCTGAAGCTGTCCATAAATTGCTGACTTTGATTAAGGAATTA**TAG**ACTGACTACATTGGAAGCTTTGAGTTGACT
TCTGACCAAAGGTGGTAAATTCAGACAACATTATGATCTAATAAACTTTATTTTTTAAAAATGA

FIGURE 741

MSRQSTLYSFFPKSPALSDANKASARASREGGRAAAAPGASPSPGGDAAWSEAGPGPRPLARSASPPKAKNLNGG
LRRSVAPAAPTSCDFSPGDLVWAKMEGYPWWPCLVYNHPFDGTFIREKGKSVRVHVQFFDDSPTRGWVSKRLLKP
YTGSKSKEAQKGGHFYSAKPEILRAMQRADEALNKDKIKRLELAVCDEPSEPEEEEEMEVGTTYVTDKSEEDNEI
ESEEEVQPKTQGSRRSSRQIKKRRVISDSESDIGGSDVEFKPDTKEEGSSDEISSGVGDSESEGLNSPVKVARKR
KRMVTGNGSLKRKSSRKETPSATKQATSISSETKNTLRAFSAPQNSESQAHVSGGGDDSSRPTVWYHETLEWLKE
EKRRDEHRRRPDHPDFDASTLYVPEDFLNSCTPGMRKWWQIKSQNFDLVICYKVGKFYELYHMDALIGVSELGLV
FMKGNWAHSGFPEIAFGRYSDSLVQKGYKVARVEQTETPEMMEARCRKMAHISKYDRVVRREICRIITKGTQTYS
VLEGDPSENYSKYLLSLKEKEEDSSGHTRAYGVCFVDTSLGKFFIGQFSDDRHCSRFRTLVAHYPPVQVLFEKGN
LSKETKTILKSSLSCSLQEGLIPGSQFWDASKTLRTLLEEEYFREKLSDGIGVMLPQVLKGMTSESDSIGLTPGE
KSELALSALGGCVFYLKKCLIDQELLSMANFEEYIPLDSDTVSTTRSGAIFTKAYQRMVLDAVTLNNLEIFLNGT
NGSTEGTLLERVDTCHTPFGKRLLKQWLCAPLCNHYAINDRLDAIEDLMVVPDKISEVVELLKKLPDLERLLSKI
HNVGSPLKSQNHPDSRAIMYEETTYSKKKIIDFLSALEGFKVMCKIIGIMEEVADGFKSKILKQVISLQTKNPEG
RFPDLTVELNRWDTAFDHEKARKTGLITPKAGFDSDYDQALADIRENEQSLLEYLEKQRNRIGCRTIVYWGIGRN
RYQLEIPENFTTRNLPEEYELKSTKKGCKRYWTKTIEKKLANLINAEERRDVSLKDCMRRLFYNFDKNYKDWQSA
VECIAVLDVLLCLANYSRGGDGPMCRPVILLPEDTPPFLELKGSRHPCITKTFFGDDFIPNDILIGCEEEEQENG
KAYCVLVTGPNMGGKSTLMRQAGLLAVMAQMGCYVPAEVCRLTPIDRVFTRLGASDRIMSGESTFFVELSETASI
LMHATAHSLVLVDELGRGTATFDGTAIANAVVKELAETIKCRTLFSTHYHSLVEDYSQNVAVRLGHMACMVENEC
EDPSQETITFLYKFIKGACPKSYGFNAARLANLPEEVIQKGHRKAREFEKMNQSLRLFREVCLASERSTVDAEAV
HKLLTLIKEL

FIGURE 742

GACGCCGACG**ATG**AAGACACCGTGGAAGGTTCTTCTGGGACTGCTGGGTGCTGCTGCGCTTGTCACCATCATCAC
CGTGCCCGTGGTTCTGCTGAACAAAGGCACAGATGATGCTACAGCTGACAGTCGCAAAACTTACACTCTAACTGA
TTACTTAAAAAATACTTATAGACTGAAGTTATACTCCTTAAGATGGATTTCAGATCATGAATATCTCTACAAACA
AGAAAATAATATCTTGGTATTCAATGCTGAATATGGAAACAGCTCAGTTTTCTTGGAGAACAGTACATTTGATGA
GTTTGGACATTCTATCAATGATTATTCAATATCTCCTGATGGGCAGTTTATTCTCTTAGAATACAACTACGTGAA
GCAATGGAGGCATTCCTACACAGCTTCATATGACATTTATGATTTAAATAAAAGGCAGCTGATTACAGAAGAGAG
GATTCCAAACAACACACAGTGGGTCACATGGTCACCAGTGGGTCATAAATTGGCATATGTTTGGAACAATGACAT
TTATGTTAAAATTGAACCAAATTTACCAAGTTACAGAATCACATGGACGGGGAAAGAAGATATAATATATAATGG
AATAACTGACTGGGTTTATGAAGAGGAAGTCTTCAGTGCCTACTCTGCTCTGTGGTGGTCTCCAAACGGCACTTT
TTTAGCATATGCCCAATTTAACGACACAGAAGTCCCACTTATTGAATACTCCTTCTACTCTGATGAGTCACTGCA
GTACCCAAAGACTGTACGGGTTCCATATCCAAAGGCAGGAGCTGTGAATCCAACTGTAAAGTTCTTTGTTGTAAA
TACAGACTCTCTCAGCTCAGTCACCAATGCAACTTCCATACAAATCACTGCTCCTGCTTCTATGTTGATAGGGGA
TCACTACTTGTGTGATGTGACATGGGCAACACAAGAAAGAATTTCTTTGCAGTGGCTCAGGAGGATTCAGAACTA
TTCGGTCATGGATATTTGTGACTATGATGAATCCAGTGGAAGATGGAACTGCTTAGTGGCACGGCAACACATTGA
AATGAGTACTACTGGCTGGGTTGGAAGATTTAGGCCTTCAGAACCTCATTTTACCCTTGATGGTAATAGCTTCTA
CAAGATCATCAGCAATGAAGAAGGTTACAGACACATTTGCTATTTCCAAATAGATAAAAAGACTGCACATTTAT
TACAAAAGGCACCTGGGAAGTCATCGGGATAGAAGCTCTAACCAGTGATTATCTATACTACATTAGTAATGAATA
TAAAGGAATGCCAGGAGGAAGGAATCTTTATAAAATCCAACTTAGTGACTATACAAAAGTGACATGCCTCAGTTG
TGAGCTGAATCCGGAAAGGTGTCAGTACTATTCTGTGTCATTCAGTAAAGAGGCGAAGTATTATCAGCTGAGATG
TTCCGGTCCTGGTCTGCCCCTCTATACTCTACACAGCAGCGTGAATGATAAAGGGCTGAGAGTCCTGGAAGACAA
TTCAGCTTTGGATAAAATGCTGCAGAATGTCCAGATGCCCTCCAAAAAACTGGACTTCATTATTTTGAATGAAAC
AAAATTTTGGTATCAGATGATCTTGCCTCCTCATTTTGATAAATCCAAGAAATATCCTCTACTATTAGATGTGTA
TGCAGGCCCATGTAGTCAAAAAGCAGACACTGTCTTCAGACTGAACTGGGCCACTTACCTTGCAAGCACAGAAAA
CATTATAGTAGCTAGCTTTGATGGCAGAGGAAGTGGTTACCAAGGAGATAAGATCATGCATGCAATCAACAGAAG
ACTGGGAACATTTGAAGTTGAAGATCAAATTGAAGCAGCCAGACAATTTTCAAAAATGGGATTTGTGGACAACAA
ACGAATTGCAATTTGGGGCTGGTCATATGGAGGGTACGTAACCTCAATGGTCCTGGGATCAGGAAGTGGCGTGTT
CAAGTGTGGAATAGCCGTGGCGCCTGTATCCCGGTGGGAGTACTATGACTCAGTGTACACAGAACGTTACATGGG
TCTCCCAACTCCAGAAGACAACCTTGACCATTACAGAAATTCAACAGTCATGAGCAGAGCTGAAAATTTTAAACA
AGTTGAGTACCTCCTTATTCATGGAACAGCAGATGATAACGTTCACTTTCAGCAGTCAGCTCAGATCTCCAAAGC
CCTGGTCGATGTTGGAGTGGATTTCCAGGCAATGTGGTATACTGATGAAGACCATGGAATAGCTAGCAGCACAGC
ACACCAACATATATATACCCACATGAGCCACTTCATAAAACAATGTTTCTCTTTACC**TAG**CACCTCAAAATACC
ATGCCATTTAAAGCTTATTAAAACTCATTTTTGTTTTCATTATCTCAAAACTGCACTGTCAAGATGATGATGATC
TTTAAAATACACACTCAAATCAAGAAACTTAAGGTTACCTTTGTTCCCAAATTTCATACCTATCATCTTAAGTAG
GGACTTCTGTCTTCACAACAGATTATTACCTTACAGAAGTTTGAATTATCCGGTCGGGTTTTATTGTTTAAAATC
ATTTCTGCATCAGCTGCTGAAACAACAAATAGGAATTGTTTTTATGGAGGCTTTGCATAGATTCCCTGAGCAGGA
TTTTAATCTTTTTCTAACTGGACTGGTTCAAATGTTGTTCTCTTCTTTAAAGGGATGGCAAGATGTGGGCAGTGA
TGTCACTAGGGCAGGGACAGGATAAGAGGGATTAGGGAGAGAAGATAGCAGGGCATGGCTGGGAACCCAAGTCCA
AGCATACCAACACGACCAGGCTACTGTCAGCTCCCCTCGGAGAAAACTGTGCAGTCTGCGTGTGAACAGCTCTTC
TCCTTTAGAGCACAATGGATCTCGAGGGATCTTCCATACCTACCAGTTCTGCGCCTCGAGGCCGCGACTCTAGA

FIGURE 743

MKTPWKVLLGLLGAAALVTIITVPVVLLNKGTDDATADSRKTYTLTDYLKNTYRLKLYSLRWISDHEYLYKQENN
ILVFNAEYGNSSVFLENSTFDEFGHSINDYSISPDGQFILLEYNYVKQWRHSYTASYDIYDLNKRQLITEERIPN
NTQWVTWSPVGHKLAYVWNNDIYVKIEPNLPSYRITWTGKEDIIYNGITDWVYEEEVFSAYSALWWSPNGTFLAY
AQFNDTEVPLIEYSFYSDESLQYPKTVRVPYPKAGAVNPTVKFFVVNTDSLSSVTNATSIQITAPASMLIGDHYL
CDVTWATQERISLQWLRRIQNYSVMDICDYDESSGRWNCLVARQHIEMSTTGWVGRFRPSEPHFTLDGNSFYKII
SNEEGYRHICYFQIDKKDCTFITKGTWEVIGIEALTSDYLYYISNEYKGMPGGRNLYKIQLSDYTKVTCLSCELN
PERCQYYSVSFSKEAKYYQLRCSGPGLPLYTLHSSVNDKGLRVLEDNSALDKMLQNVQMPSKKLDFIILNETKFW
YQMILPPHFDKSKKYPLLLDVYAGPCSQKADTVFRLNWATYLASTENIIVASFDGRGSGYQGDKIMHAINRRLGT
FEVEDQIEAARQFSKMGFVDNKRIAIWGWSYGGYVTSMVLGSGSGVFKCGIAVAPVSRWEYYDSVYTERYMGLPT
PEDNLDHYRNSTVMSRAENFKQVEYLLIHGTADDNVHFQQSAQISKALVDVGVDFQAMWYTDEDHGIASSTAHQH
IYTHMSHFIKQCFSLP

FIGURE 744

CCGGTCGGATGCCGGACCGGGGGCACCGCTGAGGCGGTGGGTCCCCGACCTGCGAGACAGGTTTGGAAGCCCCCG
CTGCGCCCAGTCCGTGCGGACCGCGAGGCCGCGGGCGGGTGGAGGCGCGTCTCCGGCACG**ATG**AAGGATTTGGGG
GCAGAGCACTTGGCAGGTCATGAAGGGGTCCAACTTCTCGGGTTGTTGAACGTCTACCTGGAACAAGAAGAGAGA
TTCCAACCTCGAGAAAAAGGGCTGAGTTTGATTGAGGCTACCCCGGAGAATGATAACACTTTGTGTCCAGGATTG
AGAAATGCCAAAGTTGAAGATTTAAGGAGTTTAGCCAACTTTTTTGGATCTTGCACTGAAACTTTTGTCCTGGCT
GTCAATATTTTGGACAGGTTCTTGGCTCTTATGAAGGTGAAACCTAAACATTTGTCTTGCATTGGAGTCTGTTCT
TTTTTGCTGGCTGCTAGAATAGTTGAAGAAGACTGCAATATTCCATCCACTCATGATGTGATCCGGATTAGTCAG
TGTAAATGTACTGCTTCTGACATAAAACGGATGGAAAAAATAATTTCAGAAAAATTGCACTATGAATTGGAAGCT
ACTACTGCCTTAAACTTTTTGCACTTATACCATACTATTATACTTTGTCATACTTCAGAAAGGAAAGAAATACTG
AGCCTTGATAAACTAGAAGCTCAGCTGAAAGCTTGCAACTGCCGACTCATCTTTTCAAAAGCAAAACCATCTGTA
TTAGCCTTGTGCCTTCTCAATTTGGAAGTGGAAACTTTGAAATCTGTTGAATTACTGGAAATTCTCTTGCTAGTT
AAAAAACATTCCAAGATTAATGACACTGAGTTCTTCTACTGGAGAGAGTTGGTTTCTAAATGCCTAGCCGAGTAT
TCTTCTCCTGAATGTTGCAAACCAGATCTTAAGAAGTTGGTTTGGATCGTTTCAAGGCGCACAGCCCAGAACCTC
CACAACAGCTACTATAGTGTTCCTGAGCTGCCAACGATACCTGAGGGGGGTTGTTTTGATGAAAGTGAAAGTGAG
GACTCTTGTGAAGATATGAGTTGTGGAGAGGAGAGTCTCAGCAGCTCTCCTCCCAGTGATCAAGAGTGCACCTTC
TTTTTCAACTTCAAAGTGGCACAAACACTGTGCTTTCCATCT**TAG**AAATCTGATTGTTCTGTCAGAATTTATATT
TACAGGGTTTCAAAGCAATAAATGGGGGAATAGGTAGTTTCCTGGTTTAGCCCCCATCTAGTCAGGAATTAATAT
ACTGGAATACCTACCTTCTATTTGTTATTCAGATCAGATCTGGCCTATTTTCATATTTATCCTAAGCCATCAAAT
GGGGTAGTGCCTCTTAAACCATTAACAGTACTTTAGACATTGGCACTTTATTTTTCTCGTAGATCTTTAGCTACT
TTGGGGAGGAGGGAAGGTGCTGATACCTTCAATTTGTTACTTTTCAAGATTTTTAAAAATAACTAGTGTAGCTTA
TCTTAAACATTTTATAAAACCTTCAGATGTCTTTAAGCAGATTGGAAGTATGCAAGTGCTTCCTTAGCAGGGACA
GTGGATAATCCTTAATGGTTTATCATAGATTTCACCCTCCCCCCTTCTCAGAAGAGTGAGTATGCTCTTAAATGT
CAAACACATTTTTGTTGTTTGTTTTTAAATGATCAGTGTCTATTTGATGTGATGCAGATCTTATAAATTTGGG
AATTATAATATTGACATTTCTGTGATTTTTATATATGTAATGTCTTAATTGAGATTTGTGTTAAGGCAGAAATAA
TTAGGCTAGGGCTCTTAGTTTTCATTCCTATTGCCCCAAGTATTGTCAAACTATGGTATTATTTTAATGTTACTT
TAAAAATCCATAATCTGCTAGTTTTGCATGTACTTATATGAAAACAGTGCAGTAAGTTGAAAACTCAGTATCTAT
GGAATTGATAAATGTTGATCTGGTGTAGTATATTTTATCCGCATTTTCTTATATTAAAAAATGTTCTGCATGATT
ACATTTTATTTGCCTTTGT

FIGURE 745

MKDLGAEHLAGHEGVQLLGLLNVYLEQEERFQPREKGLSLIEATPENDNTLCPGLRNAKVEDLRSLANFFGSCTE
TFVLAVNILDRFLALMKVKPKHLSCIGVCSFLLAARIVEEDCNIPSTHDVIRISQCKCTASDIKRMEKIISEKLH
YELEATTALNFLHLYHTIILCHTSERKEILSLDKLEAQLKACNCRLIFSKAKPSVLALCLLNLEVETLKSVELLE
ILLLVKKHSKINDTEFFYWRELVSKCLAEYSSPECCKPDLKKLVWIVSRRTAQNLHNSYYSVPELPTIPEGGCFD
ESESEDSCEDMSCGEESLSSSPPSDQECTFFFNFKVAQTLCFPS

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FIGURE 746

ATGGCCTGGATGCTGTTGCTCATCTTGATCATGGTCCATCCAGGATCCTGTGCTCTCTGGGTGTCCCAGCCCCCT
GAGATTCGTACCCTGGAAGGATCCTCTGCCTTCCTGCCCTGCTCCTTCAATGCCAGCCAAGGGAGACTGGCCATT
GGCTCCGTCACGTGGTTCCGAGATGAGGTGGTTCCAGGGAAGGAGGTGAGGAATGGAACCCCAGAGTTCAGGGGC
CGCCTGGCCCCACTTGCTTCTTCCCGTTTCCTCCATGACCACCAGGCTGAGCTGCACATCCGGGACGTGCGAGGC
CATGACGCCAGCATCTACGTGTGCAGAGTGGAGGTGCTGGGCCTTGGTGTCGGGACAGGGAATGGGACTCGGCTG
GTGGTGGAGAAAGAACATCCTCAGCTAGGGGCTGGTACAGTCCTCCTCCTTCGGGCTGGATTCTATGCTGTCAGC
TTTCTCTCTGTGGCCGTGGGCAGCACCGTCTATTACCAGGGCAAATGCCACTGTCACATGGGAACACACTGCCAC
TCCTCAGATGGGCCCCGAGGRGTGATTCCAGAGCCCAGATGTCCC**TAG**

FIGURE 747

MAWMLLLILIMVHPGSCALWVSQPPEIRTLEGSSAFLPCSFNASQGRLAIGSVTWFRDEVVPGKEVRNGTPEFRG
RLAPLASSRFLHDHQAELHIRDVRGHDASIYVCRVEVLGLGVGTGNGTRLVVEKEHPQLGAGTVLLLRAGFYAVS
FLSVAVGSTVYYQGKCHCHMGTHCHSSDGPRGVIPEPRCP

FIGURE 748

GGGGAGAATCTGGTGGATGCTGGACCTTGCTGCTGCTGCTACTGCTGTTTCCAGGGGCTGCAGAGCATGGACTGT
TAAATCTTGCACTTCTTCTGAGTGAGCTGAATTCTTGCCGCCAGG**ATG**GGGAAACAGAACAGCAAGCTGCGCCCG
GAGGTCATGCAGGACTTGCTGGAAAGCACAGACTTTACAGAGCATGAGATCCAGGAATGGTATAAAGGCTTCTTG
AGAGACTGCCCCAGTGGACATTTGTCAATGGAAGAGTTTAAGAAAATATATGGGAACTTTTTCCCTTATGGGGAT
GCTTCCAAATTTGCAGAGCATGTCTTCCGCACCTTCGATGCAAATGGAGATGGGACAATAGACTTTAGAGAATTC
ATCATCGCCTTGAGTGTAACTTCGAGGGGGAAGCTGGAGCAGAAGCTGAAATGGGCCTTCAGCATGTACGACCTG
GACGGAAATGGCTATATCAGCAAGGCAGAGATGCTAGTGATCGTGCAGGCAATCTATAAGATGGTTTCCTCTGTA
ATGAAAATGCCTGAAGATGAGTCAACCCCAGAGAAAAGAACAGAAAGATCTTCCGCCAGATGGACACCAATAGA
GACGGAAAACTCTCCCTGGAAGAGTTCATCCGAGGAGCCAAAAGCGACCCGTCCATTGTGCGCCTCCTGCAGTGC
GACCCGAGCAGTGCCGGCCAGTTC**TGA**GCCCTGCGCCCACCAATCGAATTGTAGAGCTGCTTGTGTTCCCTTTTG
ATTCTTCTTTTTAACAATTTTTTTTTTTTTTGCCAAACAATATCAATGGTGATGCCGTCCCCTGTGCGGTCTGA
TGCGCCTTCCTCCGTGACGCCTTCAGCCTCTTTTGTCGTGGATGCTTCGTGGGAATGCCCAGAGCCCCAGTGTGC
TTGTGGAGAGCATGGACAGACTTCGTGGTGTTCATTGTTTGATGATTTTTAATCGTTACTATTATTTCTTTTTAT
TCTAATGTCTCTGTTCTAAAACGTAAGACTCGGGGGGTTGGGGCAAAAGAAGGGAAACCCATCCAGTCCTGTGATT
CTATTGCAAGCTTCAAGGGGCTTTTGTTTGAAAGACAAAACTCCCCACCTGGGTCTGTTGTCACACGTGCCGTAG
GGGTGATGGATGGCACCGGATGCTGGATTCCCCAAGAACAAGTTACCCTCTGGGGTGAGGCTATTCCAGCGAGCT
GGGACATTTCCCCATGGGGGCCCACTCCCCTCTCTTCCCCAGCAGGCTGTAGTTTCTAAGCTGTGAACATTTCAA
GATAAATTAACAGAGGAGAGGAAAAAGATGGCTCAGCTATTTTTTCACAGGTTTACACTAGTTGAGCTAATATGC
GTGTCTTTGGAAATTAAACACAAATGGTAACATATTCCAAAACCAGACCCATCTTGTTGCCTATTGTGATAAAAT
AAAAAGACGGCTGTATATAACATATTGGGTAATGCAGACCAAATTAAGTGTTTTGCCTTGTTTAAATGAAATGCA
TGTTTAGTGAGCACTAATACAATCTTATTCCAGAAGACTGTTTTTAGTAGCTTATTGTGAAGTAAGACAACTATA
ATGAATGTCTGTCTTGTTTGGAAGTCATATCTGTCTTTGCACAAATGTACCAATCGACAAGTATATTTATATAT
TCCATAAAAATACAAAGTAACCCTGACTAGGGCCCAACTTTAATTTTGAATGCATTTCCAGAGTGGCCATGCCTA
GAGGGCAGATGCAGAGCAGGTGGTAGTGGGACAGGACAATTGGAGCACAGGAATGTTAACATGTATGACAGGGGA
CCAGTAGGGTGGTTTCCCTCTCAGGCCCAGCAGCCCATTGACAGCATTAGACTGGCGGCATGGTGCTTTTCTGAG
CAGATCAATACTCTGCAGACTCGAAAAAACATCACATACATTCTTGGAACTTCCCAGTGGTTTAATCTATGTGCA
TGGTTAGGGAGCCAGGCCTGGAATATTCAGTTTCCCTGCCCCTGTTAAAGAATCAGAGGTTGGGCAGTCATCAAA
TTCATCATAAAGACATGGGCAAGTGTGTCTGTGGTTTCCAAGGCCCCCCTATGGAGAATCCAAAGTATTTTCCA
TTGCCGTGCTCTTTGAATGCAGACTTCTATTTCCAGAAGTGACAGCACAAGTCTGAGTTGCTGTTTGGTCTGGTG
ACCTCAGACACACTAATTTGAATTGAAAGCTAAGAGTAAAAATTTGCTGGTTACAGGCGAGTCATACTCTTGCAA
GTAGTTAGCAAAGGGAGGCCCAAATTCTCAAGGTTGTTGATGGGGAACTTGCCACTAAGAGAAGGCAGAGAGGTC
CCTAGTGGGTATATTTGCTGCCAAGCCACTTGCCAAAGAAGAGGAACCACAGAAAGAGAGACATCATGACCAGGA
GAAAAATGTGACTAGACATGCTAACCTCCAGGTTTTTATATATGACTTGAGTCTGCTGTAATTGGCAGCAGAAAT
CCAAATTTGTATGGTAGACCAAAAAGAACCAAATCCATAGGGTGAAATTTTGAGACCTAGACTCTGTAAAAATAA
TCCTAGTCTTCCTCCAGGGGTCAGTTCCTCACAGTGGTTCTGTACCAAAACTTGCCAAATTCCTCCATGGCCAAG
TGTTAAAATCTGTGTTTGGAAAATAGCGAATTAACCTAAGACACAGAAGGCAGACTGGGTGAGGAGACCTAGCAT
GCCCTATTGGCAGTGCTCAGGAGCTGCATCCCACTTTTCCCTGCTCTGAATCGAAGTCCTAGTTCCTTCCTTTGA
TTCTCCTTTGGTAGGTGGAATCAGTTAATGTTTTGAGAAACCTGCCTGGGCTCTGCCCTTAGTCATGACATCTCG
CTGAGCCAGACCCACTCTGTTCCTTGGAACCTAGAGCTGGAGTGAGGAGTAGAGGTCTCCGGCTATTCCAGAAAG
AAAAGTGAGCCACATGCAGGCTGATGAATGCCGACACTTCCAGAATGTATAGAAATAGTCCCTGTCCTGGCCTGC
CACTGACCCTGTCTGTATTTTCTCGGAGGTTGTTTTTCTCCTTCTCCTTCCCAGGAAGGTCTTTGTATGTCGAAT
CCAGTGCACTCAAGTTTGGCCAAGGGACTCCACAGCACCCAGAGGACTGCATGCCTCAAGGTTTATGTCACTCCT
CTGCTGGGCTGTTCATTGTCATTGCTGTGTTCAGGGACCTTTGGAAATAAAACCTGTTCTGTCCCAAATAAAACC
AGCCTGTGATGTTCAAGGGACTGGAATAAAGTGGCTTACGACCTGAAGGATTCTAAAAAAAAAAAAAAAAAAAAAA

FIGURE 749

MGKQNSKLRPEVMQDLLESTDFTEHEIQEWYKGFLRDCPSGHLSMEEFKKIYGNFFPYGDASKFAEHVFRTFDAN
GDGTIDFREFIIALSVTSRGKLEQKLKWAFSMYDLDGNGYISKAEMLVIVQAIYKMVSSVMKMPEDESTPEKRTE
KIFRQMDTNRDGKLSLEEFIRGAKSDPSIVRLLQCDPSSAGQF

FIGURE 750

CACCTCGCTGCTCCAGCCTCTGGGGCGCATTCCAACCTTCCAGCCTGCGACCTGCGGAGAAAAAAAATTACTTAT
TTTCTTGCCCCATACATACCTTGAGGCGAGCAAAAAAATTAAATTTTAACC**ATG**AGGGAAATCGTGCACATCCAG
GCTGGTCAGTGTGGCAACCAGATCGGTGCCAAGTTCTGGGAGGTGATCAGTGATGAACATGGCATCGACCCCACC
GGCACCTACCACGGGGACAGCGACCTGCAGCTGGACCGCATCTCTGTGTACTACAATGAAGCCACAGGTGGCAAA
TATGTTCCTCGTGCCATCCTGGTGGATCTAGAACCTGGGACCATGGACTCTGTTCGCTCAGGTCCTTTTGGCCAG
ATCTTTAGACCAGACAACTTTGTATTTGGTCAGTCTGGGGCAGGTAACAACTGGGCCAAAGGCCACTACACAGAG
GGCGCCGAGCTGGTTGATTCTGTCCTGGATGTGGTACGGAAGGAGGCAGAGAGCTGTGACTGCCTGCAGGGCTTC
CAGCTGACCCACTCACTGGGCGGGGGCACAGGCTCTGGAATGGGCACTCTCCTTATCAGCAAGATCCGAGAAGAA
TACCCTGATCGCATCATGAATACCTTCAGTGTGGTGCCTTCACCCAAAGTGTCTGACACCGTGGTCGAGCCCTAC
AATGCCACCCTCTCCGTCCATCAGTTGGTAGAGAATACTGATGAGACCTATTGCATTGACAACGAGGCCCTCTAT
GATATCTGCTTCCGCACTCTGAAGCTGACCACACCAACCTACGGGGATCTGAACCACCTTGTCTCAGCCACCATG
AGTGGTGTCACCACCTGCCTCCGTTTCCCTGGCCAGCTCAATGCTGACCTCCGCAAGTTGGCAGTCAACATGGTC
CCCTTCCCACGTCTCCATTTCTTTATGCCTGGCTTTGCCCCTCTCACCAGCCGTGGAAGCCAGCAGTATCGAGCT
CTCACAGTGCCGGAACTCACCCAGCAGGTCTTCGATGCCAAGAACATGATGGCTGCCTGTGACCCCCGCCACGGC
CGATACCTCACCGTGGCTGCTGTCTTCCGTGGTCGGATGTCCATGAAGGAGGTCGATGAGCAGATGCTTAACGTG
CAGAACAAGAACAGCAGCTACTTTGTGGAATGGATCCCCAACAATGTCAAGACAGCCGTCTGTGACATCCCACCT
CGTGGCCTCAAGATGGCAGTCACCTTCATTGGCAATAGCACAGCCATCCAGGAGCTCTTCAAGCGCATCTCGGAG
CAGTTCACTGCCATGTTCCGCCGGAAGGCCTTCCTCCACTGGTACACAGGCGAGGGCATGGACGAGATGGAGTTC
ACCGAGGCTGAGAGCAACATGAACGACCTCGTCTCTGAGTATCAGCAGTACCAGGATGCCACCGCAGAAGAGGAG
GAGGATTTCGGTGAGGAGGCCGAAGAGGAGGCC**TAA**GGCAGAGCCCCCATCACCTCAGGCTTCTCAGTTCCCTTA
GCCGTCTTACTCAACTGCCCCTTTCCTCTCCCTCAGAATTTGTGTTTGCTGCCTCTATCTTGTTTTTTGTTTTTT
CTTCTGGGGGGGGTCTAGAACAGTGCCTGGCACATAGTAGGCGCTCAATAAATACTTGTTTGTTGAATGTCTCCT
CTCTCTTTCCACTCTGGGAAACCTAGGTTTCTGCCATTCTGGGTGACCCTGTATTTCTTTCTGGTGCCCATTCCA
TTTGTCCAGTTAATACTTCCTCTTAAAAATCTCCAAGAAGCTGGGTCTCCAGATCCCATTTAGAACCAACCAGGT
GCTGAAAACACATGTAGATAATGGCCATCATCCTAAGCCCAAAGTAGAAAATGGTAGAAGGTAGTGGGTAGAAGT
CACTATATAAGGAAGGGGATGGGATTTTCCATTCTAAAAGTTTTGGAGAGGGAAATCCAGGCTATTAAAGTCACT
AAATTTCTAAGTATGTCCATTTCCCATCTCAGCTTCAAGGGAGGTGTCAGCAGTATTATCTCCACTTTCAATCTC
CCTCCAAGCTCTACTCTGGAGGAGTCTGTCCCACTCTGTCAAGTGGAATCCTTCCCTTTCCAACTCTACCTCCCT
CACTCAGCTCCTTTCCCCTGATCAGAGAAAGGGATCAAGGGGGTTGGGAGGGGGGAAAGAGACCAGCCTTGGTCC
CTAAGCCTCCAGAAACGTCTTCTTAATCCCCACCTTTTCTTACTCCCAAAAAAGAATGAACACCCCTGACTCTGG
AGTGGTGTATACTGCCACATCAGTGTTTGAGTCAGTCCCCAGAGGAGAGGGGAACCCTCCTCCATCTTTTTTGCA
ACATCTCATTTCTTCCTTTTGCTGTTGCTTCCCCCCTCACACACTTGGTTTTGTTCTATCCTACATTTGAGATTT
CTATTTTATGTTGAACTTGCTGCTTTTTTTCATATTGAAAAGATGACATCGCCCCAAGAGCCAAAAATAAATGGG
AATTGAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 751

MREIVHIQAGQCGNQIGAKFWEVISDEHGIDPTGTYHGDSDLQLDRISVYYNEATGGKYVPRAILVDLEPGTMDS
VRSGPFGQIFRPDNFVFGQSGAGNNWAKGHYTEGAELVDSVLDVVRKEAESCDCLQGFQLTHSLGGGTGSGMGTL
LISKIREEYPDRIMNTFSVVPSPKVSDTVVEPYNATLSVHQLVENTDETYCIDNEALYDICFRTLKLTTPTYGDL
NHLVSATMSGVTTCLRFPGQLNADLRKLAVNMVPFPRLHFFMPGFAPLTSRGSQQYRALTVPELTQQVFDAKNMM
AACDPRHGRYLTVAAVFRGRMSMKEVDEQMLNVQNKNSSYFVEWIPNNVKTAVCDIPPRGLKMAVTFIGNSTAIQ
ELFKRISEQFTAMFRRKAFLHWYTGEGMDEMEFTEAESNMNDLVSEYQQYQDATAEEEEDFGEEAEEEA .

FIGURE 752

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GAATTGAACCACCCATTTTCCTTTCTTAGCCAAATCACCAAAATGTCCAGTTAGAACAAGAATTTAGCATTCTGC
AAAAGAAGTTAACAGCTGAGATAACGAGGAAATATTCTGAAATGGATCCCAAATATTTCATCTTAATTTTGTTTT
GTGGACACCTGAACAATACATTTTTTTCAAAGACAGAGACAATTACAACAGAGAAGCAGTCACAGCCTACCTTAT
TCACATCATCAATGTCACAGGTATTGGCTAATTCTCAAAACACAACAGGGAATCCTTTGGGTCAACCAACACAAT
TCAGCGACACTTTTTCTGGACAATCAATATCACCTGCCAAAGTCACTGCTGGACAACCAACACCAGCTGTCTATA
CCTCTTCTGAAAAACCAGAAGCACATACTTCTGCTGGACAACCACTTGCCTACAACACCAAACAACCAACACCAA
TAGCCAACACCTCCTCCCAGCAAGCCGTGTTCACCTCTGCCAGACAACTACCATCTGCCCGTACTTCTACCACAC
AACCACCAAAGTCATTTGTCTATACTTTTACTCAACAATCATCATCTGTCCAGATCCCTTCTAGAAAACAAATAA
CTGTTCATAATCCATCCACACAACCAACATCAACTGTCAAAAATTCACCTAGGAGTACACCAGGATTTATCTTAG
ATACTACCAGTAACAAACAAACCCCACAAAAAAACAATTATAATTCAATAGCTGCCATACTAATTGGTGTACTTC
TGACTTCTATGTTGGTAGCTATAATCATCATTGTACTTTGGAAATGCTTAAGGAAACCAGTTTTAAATGATCAAA
ATTGGGCAGGTAGATCTCCATTTGCTGATGGAGAAACCCCTGACATTGTATGGATAACATCAGAGAAAATGAAA
TATCCACAAAACGTACATCAATCATTTCACTTACACCCTGGAAACCAAGCAAAGCACACTTTTAGCAGATGACT
TAGAAATTAAGTTGTTTGAATCAAGTGAAAACATTGAAGACTCCAACAACCCCAAAACAGAGAAAATAAAAGATC
AAGTAAATGGTACATCAGAAGATAGTGCTGATGGTTCAACAGTTGGAACTGCTGTTTCTTCTTCAGATGATGCAG
GTCTGCCTCCACCACCTCCCCTTCTGGATTTGGAAGGACAGGAAAGTAACCAATCTGACAAACCCACAATGACAA
TTGTATCTCCTCTTCCAAATGATTCTACTAGTCTCCCTCCATCTCTGGACTGTCTCAATCAAGACTGTGGAGATC
ATAAATCTGAGATAATACAATCATTTCCACCGCTTGACTCACTTAACTTGCCCCTGCCACCAGTAGATTTTATGA
AAAACCAAGAAGATTCCAACCTTGAGATCCAGTGTCAGGAGTTCTCTATTCCTCCCAACTCTGATCAAGATCTTA
ATGAATCCCTGCCACCTCCACCTGCAGAACTGTTATAAATATTACAACTTGCTTTTTAGCTGATCTTCCATCCTC
AAATGACTCTTTTTTCTTTATATGTTAACATATATAAAATGGCAACTGATAGTCAATTTTGATTTTTATTCAGGA
ACTATCTGAAATCTGCTCAGAGCCTATGTGCATAGATGAAACTTTTTTTTAAAAAAAGTTATTTAACAGTAATCT
ATTTACTAATTATAGTACCTATCTTTAAAGTATAGTACATTTTACATATGTAAATGGTATGTTTCAATAATTTAA
GAACTCTGAAACAATCTACATATACTTATTACCCAGTACAGTTTTTTTTCCCCTGAAAAGCTGTGTATAAAATTA
TGGTGAATAAACTTTTATGTTTCCATTTCAAAGACCAGGGTGGAGAGGAATAAGAGACTAAGTATATGCTTCAAG
TTTTAAATTAATACCTCAAGTATTAAATAAATATTCCAAGTTTGTGGGAATGGGAGATTAAAATGCATGTTTGAG
AGTAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
```

FIGURE 753

MDPKYFILILFCGHLNNTFFSKTETITTEKQSQPTLFTSSMSQVLANSQNTTGNPLGQPTQFSDTFSGQSISPAK
VTAGQPTPAVYTSSEKPEAHTSAGQPLAYNTKQPTPIANTSSQQAVFTSARQLPSARTSTTQPPKSFVYTFTQQS
SSVQIPSRKQITVHNPSTQPTSTVKNSPRSTPGFILDTTSNKQTPQKNNYNSIAAILIGVLLTSMLVAIIIVLW
KCLRKPVLNDQNWAGRSPFADGETPDICMDNIRENEISTKRTSIISLTPWKPSKSTLLADDLEIKLFESSENIED
SNNPKTEKIKDQVNGTSEDSADGSTVGTAVSSSDDAGLPPPPPLLDLEGQESNQSDKPTMTIVSPLPNDSTSLPP
SLDCLNQDCGDHKSEIIQSFPPLDSLNLPLPPVDFMKNQEDSNLEIQCQEFSIPPNSDQDLNESLPPPPAELL

FIGURE 754

ATGCGTGAGTGCATCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGCAATGCCTGCTGGGAGCTCTACTGC
CTGGAACACGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATTGGGGGAGGAGATGATTCCTTCAAC
ACCTTCTTCAGTGAAACGGGTGCTGGCAAGCATGTGCCCCGGGCAGTGTTTGTAGACTTGGAACCCACAGTCATT
GATGAAGTTCGCACTGGCACTTACCGCCAGCTCTTCCACCCTGAGCAACTCATCACAGGCAAGGAAGATGCTGCC
AATAACTATGCCCGAGGGCACTACACCATTGGCAAGGAGATCATTGACCTCGTGTTGGACCGAATTCGCAAGCTG
GCTGACCAGTGCACCGGTCTTCAGGGCTTCTTGGTTTTCCACAGCTTTGGTGGGGGAACTGGTTCTGGGTTCACC
TCGCTGCTCATGGAACGTCTCTCAGTTGATTATGGCAAGAAGTCCAAGCTGGAGTTCTCCATTTACCCGGCGCCC
CAGGTTTCCACAGCTGTAGTTGAGCCCTACAACTCCATCCTCACCACCCACACCACCCTGGAGCACTCTGATTGT
GCCTTCATGGTAGACAATGAGGCCATCTATGACATCTGTCGTAGAAACCTCGATATCGAGCGCCCAACCTACACT
AACCTTAACCGCCTTATTAGCCAGATTGTGTCCTCCATCACTGCTTCCCTGAGATTTGATGGAGCCCTGAATGTT
GACCTGACAGAATTCCAGACCAACCTGGTGCCCTACCCCCGCATCCACTTCCCTCTGGCCACATATGCCCCTGTC
ATCTCTGCTGAGAAAGCCTACCATGAACAGCTTACTGTAGCAGAGATCACCAATGCTTGCTTTGAGCCAGCCAAC
CAGATGGTGAAATGTGACCCTCGCCATGGTAAATACATGGCTTGCTGCCTGTTATACCGTGGTGACGTGGTTCCC
AAAGATGTCAATGCTGCCATTGCCACCATCAAAACCAAGCGTACCATCCAGTTTGTGGATTGGTGCCCCACTGGC
TTCAAGGTTGGCATTAATTACCAGCCTCCCACTGTGGTGCCTGGCGGAGACCTGGCCAAGGTACAGAGAGCTGTG
TGCATGCTGAGCAATACCACAGCTGTTGCCGAGGCCTGGGCTCGCCTGGACCACAAGTTTGACCTGATGTATGCC
AAGCGTGCCTTTGTTCACTGGTACGTGGGTGAGGGGATGGAGGAAGGCGAGTTTTCAGAGGCCCGTGAGGACATG
GCTGCCCTTGAGAAGGATTATGAGGAGGTTGGAGCAGATAGTGCTGACGGAGAGGATGAGGGTGAAGAGTAT**TAA**

FIGURE 755

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDLEPTVI
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIRKLADQCTGLQGFLVFHSFGGGTGSGFT
SLLMERLSVDYGKKSKLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT
NLNRLISQIVSSITASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISAEKAYHEQLTVAEITNACFEPAN
QMVKCDPRHGKYMACCLLYRGDVVPKDVNAAIATIKTKRTIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV
CMLSNTTAVAEAWARLDHKFDLMYAKRAFVHWYVGEGMEEGEFSEAREDMAALEKDYEEVGADSADGEDEGEEY

FIGURE 756

GCCACACGGTCTTTGAGCTGAGTCGAGGTGGACCCTTTGAACGCAGTCGCCCTACAGCCGCTGATTCCCCCCGCA
TCGCCTCCCGTGGAAGCCCAGGCCCGCTTCGCAGCTTTCTCCCTTTGTCTCATAACC**ATG**TCCACCAACGAGAAT
GCTAATACACCAGCTGCCCGTCTTCACAGATTCAAGAACAAGGGAAAAGACAGTACAGAAATGAGGCGTCGCAGA
ATAGAGGTCAATGTGGAGCTGAGGAAAGCTAAGAAGGATGACCAGATGCTGAAGAGGAGAAATGTAAGCTCATTT
CCTGATGATGCTACTTCTCCGCTGCAGGAAAACCGCAACAACCAGGGCACTGTAAATTGGTCTGTTGATGACATT
GTCAAAGGCATAAATAGCAGCAATGTGGAAAATCAGCTCCAAGCTACTCAAGCTGCCAGGAAACTACTTTCCAGA
GAAAAACAGCCCCCCATAGACAACATAATCCGGGCTGGTTTGATTCCGAAATTTGTGTCCTTCTTGGGCAGAACT
GATTGTAGTCCCATTCAGTTTGAATCTGCTTGGGCACTCACTAACATTGCTTCTGGGACATCAGAACAAACCAAG
GCTGTGGTAGATGGAGGTGCCATCCCAGCATTCATTTCTCTGTTGGCATCTCCCCATGCTCACATCAGTGAACAA
GCTGTCTGGGCTCTAGGAAACATTGCAGGTGATGGCTCAGTGTTCCGAGACTTGGTTATTAAGTACGGTGCAGTT
GACCCACTGTTGGCTCTCCTTGCAGTTCCTGATATGTCATCTTTAGCATGTGGCTACTTACGTAATCTTACCTGG
ACACTTTCTAATCTTTGCCGCAACAAGAATCCTGCACCCCCGATAGATGCTGTTGAGCAGATTCTTCCTACCTTA
GTTCGGCTCCTGCATCATGATGATCCAGAAGTGTTAGCAGATACCTGCTGGGCTATTTCCTACCTTACTGATGGT
CCAAATGAACGAATTGGCATGGTGGTGAAAACAGGAGTTGTGCCCCAACTTGTGAAGCTTCTAGGAGCTTCTGAA
TTGCCAATTGTGACTCCTGCCCTAAGAGCCATAGGGAATATTGTCACTGGTACAGATGAACAGACTCAGGTTGTG
ATTGATGCAGGAGCACTCGCCGTCTTTCCCAGCCTGCTCACCAACCCCAAAACTAACATTCAGAAGGAAGCTACG
TGGACAATGTCAAACATCACAGCCGGCCGCCAGGACCAGATACAGCAAGTTGTGAATCATGGATTAGTCCCATTC
CTTGTCAGTGTTCTCTCTAAGGCAGATTTTAAGACACAAAAGGAAGCTGTGTGGGCCGTGACCAACTATACCAGT
GGTGGAACAGTTGAACAGATTGTGTACCTTGTTCACTGTGGCATAATAGAACCGTTGATGAACCTCTTAACTGCA
AAAGATACCAAGATTATTCTGGTTATCCTGGATGCCATTTCAAATATCTTTCAGGCTGCTGAGAAACTAGGTGAA
ACTGAGAAACTTAGTATAATGATTGAAGAATGTGGAGGCTTAGACAAAATTGAAGCTCTACAAAACCATGAAAAT
GAGTCTGTGTATAAGGCTTCGTTAAGCTTAATTGAGAAGTATTTCTCTGTAGAGGAAGAGGAAGATCAAAACGTT
GTACCAGAAACTACCTCTGAAGGCTACACTTTCCAAGTTCAGGATGGGGCTCCTGGGACCTTTAACTTT**TAG**ATC
ATGTAGCTGAGACATAAATTTGTTGTGTACTACGTTTGGTATTTTGTCTTATTGTTTCTCTACTAAGAACTCTTT
CTTAAATGTGGTTTGTTACTGTAGCACTTTTTACACTGAAACTATACTTGAACAGTTCCAACTGTACATACATAC
TGTATGAAGCTTGTCCTCTGACTAGGTTTCTAATTTCTATGTGGAATTTCCTATCTTGCAGCATCCTGTAAATAA
ACATTCAAGTCCACCCTTAAAAAAAA

FIGURE 757

MSTNENANTPAARLHRFKNKGKDSTEMRRRRIEVNVELRKAKKDDQMLKRRNVSSFPDDATSPLQENRNNQGTVN
WSVDDIVKGINSSNVENQLQATQAARKLLSREKQPPIDNIIRAGLIPKFVSFLGRTDCSPIQFESAWALTNIASG
TSEQTKAVVDGGAIPAFISLLASPHAHISEQAVWALGNIAGDGSVFRDLVIKYGAVDPLLALLAVPDMSSLACGY
LRNLTWTLSNLCRNKNPAPPIDAVEQILPTLVRLLHHDDPEVLADTCWAISYLTDGPNERIGMVVKTGVVPQLVK
LLGASELPIVTPALRAIGNIVTGTDEQTQVVIDAGALAVFPSLLTNPKTNIQKEATWTMSNITAGRQDQIQQVVN
HGLVPFLVSVLSKADFKTQKEAVWAVTNYTSGGTVEQIVYLVHCGIIEPLMNLLTAKDTKIILVILDAISNIFQA
AEKLGETEKLSIMIEECGGLDKIEALQNHENESVYKASLSLIEKYFSVEEEEDQNVVPETTSEGYTFQVQDGAPG
TFNF

FIGURE 758

ATGGCGAAATATAACACGGGGGGCAACCCGACAGAGGATGTCTCAGTCAATAGCCGACCCTTCAGAGTCACAGGG
CCAAACTCATCTTCAGGAATACAAGCAAGAAAGAACTTATTCAACAACCAAGGAAATGCCAGCCCTCCTGCAGGA
CCCAGCAATGTACCTAAGTTTGGGTCCCCAAAGCCACCTGTGGCAGTCAAACCTTCTTCTGAGGAAAAGCCTGAC
AAGGAACCCAAGCCCCCGTTTCTAAAGCCCACTGGAGCAGGCCAAAGATTCGGAACACCAGCCAGCTTGACCACC
AGAGACCCCGAGGCGAAAGTGGGATTTCTGAAACCTGTAGGCCCCAAGCCCATCAACTTGCCCAAAGAAGATTCC
AAACCTACATTTCCCTGGCCTCCTGGAAACAAGCCATCTCTTCACAGTGTAAACCAAGACCATGACTTAAAGCCA
CTAGGCCCGAAATCTGGGCCTACTCCTCCAACCTCAGAAAATGAACAGAAGCAAGCGTTTCCCAAATTGACTGGG
GTTAAAGGGAAATTTATGTCAGCATCACAAGATCTTGAACCCAAGCCCCTCTTCCCCAAACCCGCCTTTGGCCAG
AAGCCGCCCCTAAGTACCGAGAACTCCCATGAAGACGAAAGCCCCATGAAGAATGTGTCTTCATCAAAAGGGTCC
CCAGCTCCCCTGGGAGTCAGGTCCAAAAGCGGCCCTTTAAAACCAGCAAGGGAAGACTCAGAAAATAAAGACCAT
GCAGGGGAGATTTCAAGTTTGCCCTTTCCTGGAGTGGTTTTGAAACCTGCTGCGAGCAGGGGAGGCCCAGGTCTC
TCCAAAAATGGTGAAGAAAAAAGGAAGATAGGAAGATAGATGCTGCTAAGAACACCTTCCAGAGCAAAATAAAT
CAGGAAGAGTTGGCCTCAGGGACTCCTCCTGCCAGGTTCCCTAAGGCCCCTTCTAAGCTGACAGTGGGGGGGCCA
TGGGGCCAAAGTCAGGAAAAGGAAAAGGGAGACAAGAATTCAGCCACCCCGAAACAGAAGCCATTGCCTCCCTTG
TTTACCTTGGGTCCACCTCCACCAAAACCCAACAGACCACCAAATGTTGACCTGACGAAATTCCACAAAACCTCT
TCTGGAAACAGTACTAGCAAAGGCCAGACGTCTTACTCAACAACTTCCCTGCCACCACCTCCACCATCCCATCCG
GCCAGCCAACCACCATTGCCAGCATCTCACCCATCACAACCACCAGTCCCAAGCCTACCTCCCAGAAACATTAAA
CCTCCGTTTGACCTAAAAAGTCCTGTCAATGAAGACAATCAAGATGGTGTCACGCACTCTGATGGTGCTGGAAAT
CTAGATGAGGAACAAGACAGTGAAGGAGAAACATATGAAGACATAGAAGCATCCAAAGAAAGAGAGAAGAAAAGG
GAAAAGGAAGAAAAGAAGAGGTTAGAGCTGGAGAAAAAGGAACAGAAAGAGAAAGAAAAGAAAGAACAAGAAATA
AAGAAGAAATTTAAACTAACAGGCCCTATTCAAGTCATCCATCTTGCAAAAGCTTGTTGTGATGTCAAAGGAGGA
AAGAATGAACTGAGCTTCAAGCAAGGAGAGCAAATTGAAATCATCCGCATCACAGACAACCCAGAAGGAAATGG
TTGGGCAGAACAGCAAGGGGTTCATATGGCTATATTAAAACAACTGCTGTAGAGATTGACTATGATTCTTTGAAA
CTGAAAAAAGACTCTCTTGGTGCCCCTTCAAGACCTATTGAAGATGACCAAGAAGTATATGATGATGTTGCAGAG
CAGGATGATATTAGCAGCCACAĠTCAGAGTGGAAGTGGAGGGATATTCCCTCCACCACCAGATGATGACATTTAT
GATGGGATTGAAGAGGAAGATGCTGATGATGGCTCCACACTACAGGTTCAAGAGAAGAGTAATACGTGGTCCTGG
GGGATTTTGAAGATGTTAAAGGGAAAGATGACAGAAAGAAAAGTATACGAGAGAAACCTAAAGTCTCTGACTCA
GACAATAATGAAGGTTCATCTTTCCCTGCTCCTCCTAAACAATTGGACATGGGAGATGAAGTTTACGATGATGTG
GATACCTCTGATTTCCCTGTTTCATCAGCAGAGATGAGTCAAGGAACTAATTTTGGAAAAGCTAAGACAGAAGAA
AAGGACCTTAAGAAGCTAAAAAAGCAGGAAAAAGAAGAAAAAGACTTCAGGAAAAAATTTAAATATGATGGTGAA
ATTAGAGTCCTATATTCAACTAAAGTTACAACTTCCATAACTTCTAAAAAGTGGGGAACCAGAGATCTACAGGTA
AAACCTGGTGAATCTCTAGAAGTTATACAAACCACAGATGACACAAAAGTTCTCTGCAGAAATGAAGAAGGGAAA
TATGGTTATGTCCTTCGGAGTTACCTAGCGGACAATGATGGAGAGATCTATGATGATATTGCTGATGGCTGCATC
TATGACAATGAC**TAG**

FIGURE 759

MAKYNTGGNPTEDVSVNSRPFRVTGPNSSSGIQARKNLFNNQGNASPPAGPSNVPKFGSPKPPVAVKPSSEEKPD
KEPKPPFLKPTGAGQRFGTPASLTTRDPEAKVGFLKPVGPKPINLPKEDSKPTFPWPPGNKPSLHSVNQDHDLKP
LGPKSGPTPPTSENEQKQAFPKLTGVKGKFMSASQDLEPKPLFPKPAFGQKPPLSTENSHEDESPMKNVSSSKGS
PAPLGVRSKSGPLKPAREDSENKDHAGEISSLPFPGVVLKPAASRGGPGLSKNGEEKKEDRKIDAAKNTFQSKIN
QEELASGTPPARFPKAPSKLTVGGPWGQSQEKEKGDKNSATPKQKPLPPLFTLGPPPPKPNRPPNVDLTKFHKTS
SGNSTSKGQTSYSTTSLPPPPPSHPASQPPLPASHPSQPPVPSLPPRNIKPPFDLKSPVNEDNQDGVTHSDGAGN
LDEEQDSEGETYEDIEASKEREKKREKEEKKRLELEKKEQKEKEKKEQEIKKKFKLTGPIQVIHLAKACCDVKGG
KNELSFKQGEQIEIIRITDNPEGKWLGRTARGSYGYIKTTAVEIDYDSLKLKKDSLGAPSRPIEDDQEVYDDVAE
QDDISSHSQSGSGGIFPPPPDDDIYDGIEEEDADDGSTLQVQEKSNTWSWGILKMLKGKDDRKKSIREKPKVSDS
DNNEGSSFPAPPKQLDMGDEVYDDVDTSDFPVSSAEMSQGTNFGKAKTEEKDLKKLKKQEKEEKDFRKKFKYDGE
IRVLYSTKVTTSITSKKWGTRDLQVKPGESLEVIQTTDDTKVLCRNEEGKYGYVLRSYLADNDGEIYDDIADGCI
YDND

FIGURE 760

TAGGATGGAAAGGCAGATGTAAAGTCCCTC**ATG**GCGAAATATAACACGGGGGGCAACCCGACAGAGGATGTCTCA
GTCAATAGCCGACCCTTCAGAGTCACAGGGCCAAACTCATCTTCAGGAATACAAGCAAGAAAGAACTTATTCAAC
AACCAAGGAAATGCCAGCCCTCCTGCAGGACCCAGCAATGTACCTAAGTTTGGGTCCCCAAAGCCACCTGTGGCA
GTCAAACCTTCTTCTGAGGAAAAGCCTGACAAGGAACCCAAGCCCCCGTTTCTAAAGCCCACTGGAGCAGGCCAA
AGATTCGGAACACCAGCCAGCTTGACCACCAGAGACCCCGAGGCGAAAGTGGGATTTCTGAAACCTGTAGGCCCC
AAGCCCATCAACTTGCCCAAAGAAGATTCCAAACCTACATTTCCCTGGCCTCCTGGAAACAAGCCATCTCTTCAC
AGTGTAAACCAAGACCATGACTTAAAGCCACTAGGCCCGAAATCTGGGCCTACTCCTCCAACCTCAGAAAATGAA
CAGAAGCAAGCGTTTCCCAAATTGACTGGGGTTAAAGGGAAATTTATGTCAGCATCACAAGATCTTGAACCCAAG
CCCCTCTTCCCCAAACCCGCCTTTGGCCAGAAGCCGCCCCTAAGTACCGAGAACTCCCATGAAGACGAAAGCCCC
ATGAAGAATGTGTCTTCATCAAAAGGGTCCCCAGCTCCCCTGGGAGTCAGGTCCAAAAGCGGCCCTTTAAAACCA
GCAAGGGAAGACTCAGAAAATAAAGACCATGCAGGGGAGATTTCAAGTTTGCCCTTTCCTGGAGTGGTTTTGAAA
CCTGCTGCGAGCAGGGGAGGCCTAGGTCTCTCCAAAAATGGTGAAGAAAAAAGGAAGATAGGAAGATAGATGCT
GCTAAGAACACCTTCCAGAGCAAAATAAATCAGGAAGAGTTGGCCTCAGGGACTCCTCCTGCCAGGTTCCCTAAG
GCCCCTTCTAAGCTGACAGTGGGGGGGGCCATGGGGCCAAAGTCAGGAAAAGGAAAAGGGAGACAAGAATTCAGCC
ACCCCGAAACAGAAGCCATTGCCTCCCTTGTTTACCTTGGGTCCACCTCCACCAAAACCCAACAGACCACCAAAT
GTTGACCTGACGAAATTCCACAAAACCTCTTCTGGAAACAGTACTAGCAAAGGCCAGACGTCTTACTCAACAACT
TCCCTGCCACCACCTCCACCATCCCATCCGGCCAGCCAACCACCATTGCCAGCATCTCACCCATCACAACCACCA
GTCCCAAGCCTACCTCCCAGAAACATTAAACCTCCGTTTGACCTAAAAAGCCCTGTCAATGAAGACAATCAAGAT
GGTGTCACGCACTCTGATGGTGCTGGAAATCTAGATGAGGAACAAGACAGTGAAGGAGAAACATATGAAGACATA
GAAGCATCCAAAGAAAGAGAGAAGAAAAGGGAAAAGGAAGAAAAGAAGAGGTTAGAGCTGGAGAAAAAGGAACAG
AAAGAGAAAGAAAAGAAAGAACAAGAAATAAAGAAGAAATTTAAACTAACAGGCCCTATTCAAGTCATCCATCTT
GCAAAAGCTTGTTGTGATGTCAAAGGAGGAAAGAATGAACTGAGCTTCAAGCAAGGAGAGCAAATTGAAATCATC
CGCATCACAGACAACCCAGAAGGAAAATGGTTGGGCAGAACAGCAAGGGGTTCATATGGCTATATTAAAACAACT
GCTGTAGAGATTGACTATGATTCTTTGAAACTGAAAAAAGACTCTCTTGGTGCCCCTTCAAGACCTATTGAAGAT
GACCAAGAAGTATATGATGATGTTGCAGAGCAGGATGATATTAGCAGCCACAGTCAGAGTGGAAGTGGAGGGATA
TTCCCTCCACCACCAGATGATGACATTTATGATGGGATTGAAGAGGAAGATGCTGATGATGGTTTCCCTGCTCCT
CCTAAACAATTGGACATGGGAGATGAAGTTTACGATGATGTGGATACCTCTGATTTCCCTGTTTCATCAGCAGAG
ATGAGTCAAGGAACTAATTTTGGAAAAGCTAAGACAGAAGAAAAGGACCTTAAGAAGCTAAAAAAGCAGGAAAAA
GAAGAAAAGACTTCAGGAAAAAATTTAAATATGATGGTGAAATTAGAGTCCTATATTCAACTAAAGTTACAACT
TCCATAACTTCTAAAAAGTGGGGAACCAGAGATCTACAGGTAAAACCTGGTGAATCTCTAGAAGTTATACAAACC
ACAGATGACACAAAAGTTCTCTGCAGAAATGAAGAAGGGAAATATGGTTATGTCCTTCGGAGTTACCTAGCGGAC
AATGATGGAGAGATCTATGATGATATTGCTGATGGCTGCATCTATGACAATGAC**TAG**CACTCAACTTTGGTCATT

FIGURE 761

MAKYNTGGNPTEDVSVNSRPFRVTGPNSSSGIQARKNLFNNQGNASPPAGPSNVPKFGSPKPPVAVKPSSEEKPD
KEPKPPFLKPTGAGQRFGTPASLTTRDPEAKVGFLKPVGPKPINLPKEDSKPTFPWPPGNKPSLHSVNQDHDLKP
LGPKSGPTPPTSENEQKQAFPKLTGVKGKFMSASQDLEPKPLFPKPAFGQKPPLSTENSHEDESPMKNVSSSKGS
PAPLGVRSKSGPLKPAREDSENKDHAGEISSLPFPGVVLKPAASRGGLGLSKNGEEKKEDRKIDAAKNTFQSKIN
QEELASGTPPARFPKAPSKLTVGGPWGQSQEKEKGDKNSATPKQKPLPPLFTLGPPPPKPNRPPNVDLTKFHKTS
SGNSTSKGQTSYSTTSLPPPPPSHPASQPPLPASHPSQPPVPSLPPRNIKPPFDLKSPVNEDNQDGVTHSDGAGN
LDEEQDSEGETYEDIEASKEREKKREKEEKKRLELEKKEQKEKEKKEQEIKKKFKLTGPIQVIHLAKACCDVKGG
KNELSFKQGEQIEIIRITDNPEGKWLGRTARGSYGYIKTTAVEIDYDSLKLKKDSLGAPSRPIEDDQEVYDDVAE
QDDISSHSQSGSGGIFPPPPDDDIYDGIEEEDADDGFPAPPKQLDMGDEVYDDVDTSDFPVSSAEMSQGTNFGKA
KTEEKDLKKLKKQEKEEKDFRKKFKYDGEIRVLYSTKVTTSITSKKWGTRDLQVKPGESLEVIQTTDDTKVLCRN
EEGKYGYVLRSYLADNDGEIYDDIADGCIYDND

FIGURE 762A

GCCCCAGGGCCTGGAGAGGTCTGAAGAAACCTGGGAGCCAGCAGCCCGGGGCTCCACTCTGGGTTCTGAAAGCCC
ATTCCCTGCTCTGCGGCTCCTCCCACCCCACCTCTTCTCAGCCTTGCAGCTCAAGGGTTGATCTCAGGAGTCCAG
GACCCAGGAGAGGGAAGAATCTGAGGAACACAGAACAGTGAGCGTTGCCCACACCCCATCTCCCGTCACCACATC
TCCCCTCACCCTCACCCTCCCTGCCTGGCCCTGGACCCCATCCCAGGACCTCCCTATCAGCTGACTTCTTCCAGT
GTCTTGCAGGCCCCTCTGGGCTCCTCCCTCCCCTGGCTTTTCCTACCACTCCCCCTCTATCGGCGTCTATCTGTA
GGTGCCCTGGGATTTATAAAACTGGGTTCCGAATGCTGAATAAGAGACGGTAAGAGCCAAGGCAAAGGACAGCAC
TGTTCTCTGCCTGCCTGATACCCTCACCACCTGGGAACATCCCCCAGACACCCTCTTAACTCCGGGACAGAG**ATG**

GCTGGCGGAGCCTGGGGCCGCCTGGCCTGTTACTTGGAGTTCCTGAAGAAGGAGGAGCTGAAGGAGTTCCAGCTT
CTGCTCGCCAATAAAGCGCACTCCAGGAGCTCTTCGGGTGAGACACCCGCTCAGCCAGAGAAGACGAGTGGCATG
GAGGTGGCCTCGTACCTGGTGGCTCAGTATGGGGAGCAGCGGGCCTGGGACCTAGCCCTCCATACCTGGGAGCAG
ATGGGGCTGAGGTCACTGTGCGCCCAAGCCCAGGAAGGGGCAGGCCACTCTCCCTCATTCCCCTACAGCCCAAGT
GAACCCCACCTGGGGTCTCCCAGCCAACCCACCTCCACCGCAGTGCTAATGCCCTGGATCCATGAATTGCCGGCG
GGGTGCACCCAGGGCTCAGAGAGAAGGGTTTTGAGACAGCTGCCTGACACATCTGGACGCCGCTGGAGAGAAATC
TCTGCCTCACTCCTCTACCAAGCTCTTCCAAGCTCCCCAGACCATGAGTCTCCAAGCCAGGAGTCACCCAACGCC
CCCACATCCACAGCAGTGCTGGGGAGCTGGGGATCCCCACCTCAGCCCAGCCTAGCACCCAGAGAGCAGGAGGCT
CCTGGGACCCAATGGCCTCTGGATGAAACGTCAGGAATTTACTACACAGAAATCAGAGAAAGAGAGAGAGAAA
TCAGAGAAAGGCAGGCCCCCATGGGCAGCGGTGGTAGGAACGCCCCCACAGGCGCACACCAGCCTACAGCCCCAC
CACCACCCATGGGAGCCTTCTGTGAGAGAGAGCCTCTGTTCCACATGGCCCTGGAAAAATGAGGATTTTAACCAA
AAATTCACACAGCTGCTACTTCTACAAAGACCTCACCCCAGAAGCCAAGATCCCCTGGTCAAGAGAAGCTGGCCT
GATTATGTGGAGGAGAATCGAGGACATTTAATTGAGATCAGAGACTTATTTGGCCCAGGCCTGGATACCCAAGAA
CCTCGCATAGTCATACTGCAGGGGGCTGCTGGAATTGGGAAGTCAACACTGGCCAGGCAGGTGAAGGAAGCCTGG
GGGAGAGGCCAGCTGTATGGGGACCGCTTCCAGCATGTCTTCTACTTCAGCTGCAGAGAGCTGGCCCAGTCCAAG
GTGGTGAGTCTCGCTGAGCTCATCGGAAAAGATGGGACAGCCACTCCGGCTCCCATTAGACAGATCCTGTCTAGG
CCAGAGCGGCTGCTCTTCATCCTCGATGGTGTAGATGAGCCAGGATGGGTCTTGCAGGAGCCGAGTTCTGAGCTC
TGTCTGCACTGGAGCCAGCCACAGCCGGCGGATGCACTGCTGGGCAGTTTGCTGGGGAAAACTATACTTCCCGAG
GCATCCTTCCTGATCACGGCTCGGACCACAGCTCTGCAGAACCTCATTCCTTCTTTGGAGCAGGCACGTTGGGTA
GAGGTCCTGGGGTTCTCTGAGTCCAGCAGGAAGGAATATTTCTACAGATATTTCACAGATGAAAGGCAAGCAATT
AGAGCCTTTAGGTTGGTCAAATCAAACAAAGAGCTCTGGGCCCTGTGTCTTGTGCCCTGGGTGTCCTGGCTGGCC
TGCACTTGCCTGATGCAGCAGATGAAGCGGAAGGAAAAACTCACACTGACTTCCAAGACCACCACAACCCTCTGT
CTACATTACCTTGCCCAGGCTCTCCAAGCTCAGCCATTGGGACCCCAGCTCAGAGACCTCTGCTCTCTGGCTGCT
GAGGGCATCTGGCAAAAAAAGACCCTTTTCAGTCCAGATGACCTCAGGAAGCATGGGTTAGATGGGGCCATCATC
TCCACCTTCTTGAAGATGGGTATTCTTCAAGAGCACCCCATCCCTCTGAGCTACAGCTTCATTCACCTCTGTTTC
CAAGAGTTCTTTGCAGCAATGTCCTATGTCTTGGAGGATGAGAAGGGGAGAGGTAAACATTCTAATTGCATCATA
GATTTGGAAAAGACGCTAGAAGCATATGGAATACATGGCCTGTTTGGGGCATCAACCACACGTTTCCTATTGGGC
CTGTTAAGTGATGAGGGGGAGAGAGAGATGGAGAACATCTTTCACTGCCGGCTGTCTCAGGGGAGGAACCTGATG
CAGTGGGTCCCGTCCCTGCAGCTGCTGCTGCAGCCACACTCTCTGGAGTCCCTCCACTGCTTGTACGAGACTCGG
AACAAAACGTTCCTGACACAAGTGATGGCCCATTTCGAAGAAATGGGCATGTGTGTAGAAACAGACATGGAGCTC
TTAGTGTGCACTTTCTGCATTAAATTCAGCCGCCACGTGAAGAAGCTTCAGCTGATTGAGGGCAGGCAGCACAGA
TCAACATGGAGCCCCACCATGGTAGTCCTGTTCAGGTGGGTCCCAGTCACAGATGCCTATTGGCAGATTCTCTTC
TCCGTCCTCAAGGTCACCAGAAACCTGAAGGAGCTGGACCTAAGTGGAAACTCGCTGAGCCACTCTGCAGTGAAG
AGTCTTTGTAAGACCCTGAGACGCCCTCGCTGCCTCCTGGAGACCCTGCGGTTGGCTGGCTGTGGCCTCACAGCT
GAGGACTGCAAGGACCTTGCCTTTGGGCTGAGAGCCAACCAGACCCTGACCGAGCTGGACCTGAGCTTCAATGTG
CTCACGGATGCTGGAGCCAAACACCTTTGCCAGAGACTGAGACAGCCGAGCTGCAAGCTACAGCGACTGCAGCTG
GTCAGCTGTGGCCTCACGTCTGACTGCTGCCAGGACCTGGCCTCTGTGCTTAGTGCCAGCCCCAGCCTGAAGGAG
CTAGACCTGCAGCAGAACAACCTGGATGACGTTGGCGTGCGACTGCTCTGTGAGGGGCTCAGGCATCCTGCCTGC
AAACTCATACGCCTGGGGCTGGACCAGACAACTCTGAGTGATGAGATGAGGCAGGAACTGAGGGCCCTGGAGCAG
GAGAAACCTCAGCTGCTCATCTTCAGCAGACGGAAACCAAGTGTGATGACCCCTACTGAGGGCCTGGATACGGGA
GAGATGAGTAATAGCACATCCTCACTCAAGCGGCAGAGACTCGGATCAGAGAGGGCGGCTTCCCATGTTGCTCAG

FIGURE 762B

GCTAATCTCAAACTCCTGGACGTGAGCAAGATCTTCCCAATTGCTGAGATTGCAGAGGAAAGCTCCCCAGAGGTA
GTACCGGTGGAACTCTTGTGCGTGCCTTCTCCTGCCTCTCAAGGGGACCTGCATACGAAGCCTTTGGGGACTGAC
GATGACTTCTGGGGCCCCACGGGGCCTGTGGCTACTGAGGTAGTTGACAAAGAAAAGAACTTGTACCGAGTTCAC
TTCCCTGTAGCTGGCTCCTACCGCTGGCCCAACACGGGTCTCTGCTTTGTGATGAGAGAAGCGGTGACCGTTGAG
ATTGAATTCTGTGTGTGGGACCAGTTCCTGGGTGAGATCAACCCACAGCACAGCTGGATGGTGGCAGGGCCTCTG
CTGGACATCAAGGCTGAGCCTGGAGCTGTGGAAGCTGTGCACCTCCCTCACTTTGTGGCTCTCCAAGGGGGCCAT
GTGGACACATCCCTGTTCCAAATGGCCCACTTTAAAGAGGAGGGGATGCTCCTGGAGAAGCCAGCCAGGGTGGAG
CTGCATCACATAGTTCTGGAAAACCCCAGCTTCTCCCCCTTGGGAGTCCTCCTGAAAATGATCCATAATGCCCTG
CGCTTCATTCCCGTCACCTCTGTGGTGTTGCTTTACCACCGCGTCCATCCTGAGGAAGTCACCTTCCACCTCTAC
CTGATCCCAAGTGACTGCTCCATTCGGAAGGAACTGGAGCTCTGCTATCGAAGCCCTGGAGAAGACCAGCTGTTC
TCGGAGTTCTACGTTGGCCACTTGGGATCAGGGATCAGGCTGCAAGTGAAAGACAAGAAAGATGAGACTCTGGTG
TGGGAGGCCTTGGTGAAACCAGGAGATCTCATGCCTGCAACTACTCTGATCCCTCCAGCCCGCATAGCCGTACCT
TCACCTCTGGATGCCCCGCAGTTGCTGCACTTTGTGGACCAGTATCGAGAGCAGCTGATAGCCCGAGTGACATCG
GTGGAGGTTGTCTTGGACAAACTGCATGGACAGGTGCTGAGCCAGGAGCAGTACGAGAGGGTGCTGGCTGAGAAC
ACGAGGCCCAGCCAGATGCGGAAGCTGTTCAGCTTGAGCCAGTCCTGGGACCGGAAGTGCAAAGATGGACTCTAC
CAAGCCCTGAAGGAGACCCATCCTCACCTCATTATGGAACTCTGGGAGAAGGGCAGCAAAAAGGGACTCCTGCCA
CTCAGCAGC**TGA**AGTATCAACACCAGCCCTTGACCCTTGAGTCCTGGCTTTGGCTGACCCTTCTTTGGGTCTCAG
TTTCTTTCTCTGCAAACAAGTTGCCATCTGGTTTGCCTTCCAGCACTAAAGTAATGGAACTTTGATGATGCCTTT
GCTGGGCATTATGTGTCCATGCCAGGGATGCCACAGGGGGCCCCAGTCCAGGTGGCCTAACAGCATCTCAGGGAA
TGTCCATCTGGAGCTGGCAAGACCCCTGCAGACCTCATAGAGCCTCATCGGTGGCCACAGCAGCCAAGCCTAGA
GCCCTCCGGATCCCATCCAGGCGCAAAGAGGAATAGGAGGGACATGGAACCATTGCCTCTGGCTGTGTCACAGG
GTGAGCCCCAAAATTGGGGTTCAGCGTGGGAGGCCACGTGGATTCTTGGCTTTGTACAGGAAGATCTACAAGAGC
AAGCCAACAGAGTAAAGTGGAAGGAAGTTTATTCAGAAAATAAAGGAGTATCACAGCTCTTTTAGAATTTGTCTA
GCAGGCTTTCCAGTTTTTACCAGAAAACCCCTATAAATTAAAAATTTTTTACTTAAATTTAAGAATTAAAAAAAT
ACAAAAAAGAAAAAATGAAATAAAGGAATAAGAAGTTACCTACTCCAAAAAAAAAAAA

FIGURE 763

MAGGAWGRLACYLEFLKKEELKEFQLLLANKAHSRSSSGETPAQPEKTSGMEVASYLVAQYGEQRAWDLALHTWE
QMGLRSLCAQAQEGAGHSPSFPYSPSEPHLGSPSQPTSTAVLMPWIHELPAGCTQGSERRVLRQLPDTSGRRWRE
ISASLLYQALPSSPDHESPSQESPNAPTSTAVLGSWGSPPQPSLAPREQEAPGTQWPLDETSGIYYTEIREREREE
KSEKGRPPWAAVVGTPPQAHTSLQPHHHPWEPSVRESLCSTWPWKNEDFNQKFTQLLLLQRPHPRSQDPLVKRSW
PDYVEENRGHLIEIRDLFGPGLDTQEPRIVILQGAAGIGKSTLARQVKEAWGRGQLYGDRFQHVFYFSCRELAQS
KVVSLAELIGKDGTATPAPIRQILSRPERLLFILDGVDEPGWVLQEPSSELCLHWSQPQPADALLGSLLGKTILP
EASFLITARTTALQNLIPSLEQARWVEVLGFSESSRKEYFYRYFTDERQAIRAFRLVKSNKELWALCLVPWVSWL
ACTCLMQQMKRKEKLTLTSKTTTTLCLHYLAQALQAQPLGPQLRDLCSLAAEGIWQKKTLFSPDDLRKHGLDGAI
ISTFLKMGILQEHPIPLSYSFIHLCFQEFFAAMSYVLEDEKGRGKHSNCIIDLEKTLEAYGIHGLFGASTTRFLL
GLLSDEGEREMENIFHCRLSQGRNLMQWVPSLQLLLQPHSLESLHCLYETRNKTFLTQVMAHFEEMGMCVETDME
LLVCTFCIKFSRHVKKLQLIEGRQHRSTWSPTMVVLFRWVPVTDAYWQILFSVLKVTRNLKELDLSGNSLSHSAV
KSLCKTLRRPRCLLETLRLAGCGLTAEDCKDLAFGLRANQTLTELDLSFNVLTDAGAKHLCQRLRQPSCKLQRLQ
LVSCGLTSDCCQDLASVLSASPSLKELDLQQNNLDDVGVRLLCEGLRHPACKLIRLGLDQTTLSDEMRQELRALE
QEKPQLLIFSRRKPSVMTPTEGLDTGEMSNSTSSLKRQRLGSERAASHVAQANLKLLDVSKIFPIAEIAEESSPE
VVPVELLCVPSPASQGDLHTKPLGTDDDFWGPTGPVATEVVDKEKNLYRVHFPVAGSYRWPNTGLCFVMREAVTV
EIEFCVWDQFLGEINPQHSWMVAGPLLDIKAEPGAVEAVHLPHFVALQGGHVDTSLFQMAHFKEEGMLLEKPARV
ELHHIVLENPSFSPLGVLLKMIHNALRFIPVTSVVLLYHRVHPEEVTFHLYLIPSDCSIRKELELCYRSPGEDQL
FSEFYVGHLGSGIRLQVKDKKDETLVWEALVKPGDLMPATTLIPPARIAVPSPLDAPQLLHFVDQYREQLIARVT
SVEVVLDKLHGQVLSQEQYERVLAENTRPSQMRKLFSLSQSWDRKCKDGLYQALKETHPHLIMELWEKGSKKGLL
PLSS

FIGURE 764

AACGTTCCTGACACAAGTGATGGCCCATTTCGAAGAAATGGGCATGTGTGTAGAAACAGACATGGAGCTCTTAGT
GTGCACTTTCTGCATTAAATTCAGCCGCCACGTGAAGAAGCTTCAGCTGATTGAGGGCAGGCAGCACAGATCAAC
ATGGAGCCCCACCATGGTAGTCCTGTTCAGGTGGGTCCCAGTCACAGATGCCTATTGGCAGATTCTCTTCTCCGT
CCTCAAGGTCACCAGAAACCTGAAGGAGCTGGACCTAAGTGGAAACTCGCTGAGCCACTCTGCAGTGAAGAGTCT
TTGTAAGACCCTGAGACGCCCTCGCTGCCTCCTGGAGACCCTGCGGTTGGCTGGCTGTGGCCTCACAGCTGAGGA
CTGCAAGGACCTTGCCTTTGGGCTGAGAGCCAACCAGACCCTGACCGAGCTGGACCTGAGCTTCAATGTGCTCAC
GGATGCTGGAGCCAAACACCTTTGCCAGAGACTGAGACAGCCGAGCTGCAAGCTACAGCGACTGCAGCTGGTCAG
CTGTGGCCTCACGTCTGACTGCTGCCAGGACCTGGCCTCTGTGCTTAGTGCCAGCCCCACCTGAAGGAGCTAGAC
CTGCAGCAGAACAACCTGGATGACGTTCGCGTGCGACTGCTCTGTGAGGGGCTCAGGCATCCTGCCTGCAAACTC
ATACGCCTGGGGCTGGACCAGACAACTCTGAGTGATGAG**ATG**AGGCAGGAACTGAGGGCCCTGGAGCAGGAGAAA
CCTCAGCTGCTCATCTTCAGCAGACGGAAACCAAGTGTGATGACCCCTACTGAGGGCCTGGATACGGGAGAGATG
AGTAATAGCACATCCTCACTCAAGCGGCAGAGACTCGGATCAGAGAGGGCGGCTTCCCATGTTGCTCAGGCTAAT
CTCAAACTCCTGGACGTGAGCAAGATCTTCCCAATTGCTGAGATTGCAGGCAAGAGCCACGAGGAAAGCTCCCCA
GAGGTAGTACCGGTGGAACTCTTGTGCGTGCCTTCTCCTGCCTCTCAAGGGGACCTGCATACGAAGCCTTTGGGG
ACTGACGATGACTTCTGGGGCCCCACGGGGCCTGTGGCTACTGAGGTAGTTGACAAAGAAAAGAACTTGTACCGA
GTTCACTTCCCTGTAGCTGGCTCCTACCGCTGGCCCAACACGGGTCTCTGCTTTGTGATGAGAGAAGCGGTGACC
GTTGAGATTGAATTCTGTGTGTGGGACCAGTTCCTGGGTGAGATCAACCCACAGCACAGCTGGATGGTGGCAGGG
CCTCTGCTGGACATCAAGGCTGAGCCTGGAGCTGTGGAAGCTGTGCACCTCCCTCACTTTGTGGCTCTCCAAGGG
GGCCATGTGGACACATCCCTGTTCCAAATGGCCCACTTTAAAGAGGAGGGGATGCTCCTGGAGAAGCCAGCCAGG
GTGGAGCTGCATCACATAGTTCTGGAAAACCCCAGCTTCTCCCCCTTGGGAGTCCTCCTGAAAATGATCCATAAT
GCCCTGCGCTTCATTCCCGTCACCTCTGTGGTGTTGCTTTACCACCGCGTCCATCCTGAGGAAGTCACCTTCCAC
CTCTACCTGATCCCAAGTGACTGCTCCATTCGGAAGGCCATAGATGATCTAGAAATGAAATTCCAGTTTGTGCGA
ATCCACAAGCCACCCCCGCTGACCCCACTTTATATGGGCTGTCGTTACACTGTGTCTGGGTCTGGTTCAGGGATG
CTGGAAATACTCCCCAAGGAACTGGAGCTCTGCTATCGAAGCCCTGGAGAAGACCAGCTGTTCTCGGAGTTCTAC
GTTGGCCACTTGGGATCAGGGATCAGGCTGCAAGTGAAAGACAAGAAAGATGAGACTCTGGTGTGGGAGGCCTTG
GTGAAACCAGGAAGGAACACCAGCCAGCCGTGGAACCTCAGGTGCAACAGAGACGCCAGGAGATAC**TAG**TGCCCA
GCAGCCTGCGGCAGTACCAATGAAGCCAGAGAGGGCTTGGTGGATGACAAGGAGGCCTGAGTAGACCGCAGGTGG
GTCTGAGAAATGGGCTTAGGTGAGGCAGGTCTTTGAAGGATTTGTTCTTAATCATATGCGAGATGCTCAAAAGGC
TGGATGCCTGCTTTTGTGGGTGAAGAGCAAGAAGAGAAAACAGGTTGTACACATACAGATGCAGATGGAGAGACA
GAGAAAAAAAGGAAGAAGGCAGAGAAATGCACCAATTCTTGAGCTGTATTATCTCTGGACCTTGGGATTGTGGG
AGGCTTTATTTTACTACTGATTTTGCCTACACTGTTTTCTCAATTTCTAGTTTTCTACAAAGATGATGTGTTAGC
TTTTTCACGCAAAAGATTAAAATTTAAAAAAAAAAAAAAAAAAAAAA

FIGURE 765

MRQELRALEQEKPQLLIFSRRKPSVMTPTEGLDTGEMSNSTSSLKRQRLGSERAASHVAQANLKLLDVSKIFPIA
EIAGKSHEESSPEVVPVELLCVPSPASQGDLHTKPLGTDDDFWGPTGPVATEVVDKEKNLYRVHFPVAGSYRWPN
TGLCFVMREAVTVEIEFCVWDQFLGEINPQHSWMVAGPLLDIKAEPGAVEAVHLPHFVALQGGHVDTSLFQMAHF
KEEGMLLEKPARVELHHIVLENPSFSPLGVLLKMIHNALRFIPVTSVVLLYHRVHPEEVTFHLYLIPSDCSIRKA
IDDLEMKFQFVRIHKPPPLTPLYMGCRYTVSGSGSGMLEILPKELELCYRSPGEDQLFSEFYVGHLGSGIRLQVK
DKKDETLVWEALVKPGRNTSQPWNLRCNRDARRY

FIGURE 766

GAATTCCCAAACGTGCACAGGGGAGTGAGGGCAGGGCGCTCGCAGGGGGCACGCAGGGAGGGCCCAGGGCGCCAG
GGAGGCCGCGCCGGGCTAATCCGAAGGGGCTGCGAGGTCAGGCTGTAACCGGGTCAATGTGTGGAATATTGGGGG
GCTCGGCTGCAGACTTGGCCAA**ATG**GACGGGACTATTAAGGAGGCTCTGTCGGTGGTGAGCGACGACCAGTCCCT
CTTTGACTCAGCGTACGGAGCGGCAGCCCATCTCCCCAAGGCCGACATGACTGCCTCGGGGAGTCCTGACTACGG
GCAGCCCCACAAGATCAACCCCCTCCCACCACAGCAGGAGTGGATCAATCAGCCAGTGAGGGTCAACGTCAAGCG
GGAGTATGACCACATGAATGGATCCAGGGAGTCTCCGGTGGACTGCAGCGTTAGCAAATGCAGCAAGCTGGTGGG
CGGAGGCGAGTCCAACCCCATGAACTACAACAGCTATATGGACGAGAAGAATGGCCCCCCTCCTCCCAACATGAC
CACCAACGAGAGGAGAGTCATCGTCCCCGCAGACCCCACACTGTGGACACAGGAGCATGTGAGGCAATGGCTGGA
GTGGGCCATAAAGGAGTACAGCTTGATGGAGATCGACACATCCTTTTTCCAGAACATGGATGGCAAGGAACTGTG
TAAAATGAACAAGGAGGACTTCCTCCGCGCCACCACCCTCTACAACACGGAAGTGCTGTTGTCACACCTCAGTTA
CCTCAGGGAAAGTTCACTGCTGGCCTATAATACAACCTCCCACACCGACCAATCCTCACGATTGAGTGTCAAAGA
AGACCCTTCTTATGACTCAGTCAGAAGAGGAGCTTGGGGCAATAACATGAATTCTGGCCTCAACAAAAGTCCTCC
CCTTGGAGGGGCACAAACGATCAGTAAGAATACAGAGCAACGGCCCCAGCCAGATCCGTATCAGATCCTGGGCCC
GACCAGCAGTCGCCTAGCCAACCCTGGAAGCGGGCAGATCCAGCTGTGGCAATTCCTCCTGGAGCTGCTCTCCGA
CAGCGCCAACGCCAGCTGTATCACCTGGGAGGGGACCAACGGGGAGTTCAAAATGACGGACCCCGATGAGGTGGC
CAGGCGCTGGGGCGAGCGGAAAAGCAAGCCCAACATGAATTACGACAAGCTGAGCCGGGCCCTCCGTTATTACTA
TGATAAAAACATTATGACCAAAGTGCACGGCAAAAGATATGCTTACAAATTTGACTTCCACGGCATTGCCCAGGC
TCTGCAGCCACATCCGACCGAGTCGTCCATGTACAAGTACCCTTCTGACATCTCCTACATGCCTTCCTACCATGC
CCACCAGCAGAAGGTGAACTTTGTCCCTCCCCATCCATCCTCCATGCCTGTCACTTCCTCCAGCTTCTTTGGAGC
CGCATCACAATACTGGACCTCCCCCACGGGGGGAATCTACCCCAACCCCAACGTCCCCGCCATCCTAACACCCA
CGTGCCTTCACACTTAGGCAGCTACTAC**TAG**AAGCTTCTTCTAGCTGAAGCCCATCCTGCACACTTACTGGATGC
TTTGGACTCAACAGGACATATGTGGCCTTGAAGGGAAGACAAAACTGGATGTTCTTTCTTGTTGGATAGAACCTT
TGTATTTGTTCTTTAAAAACATTTTTTTTAATGTTGGTAACTTTTGCTTCCTCTACCTGAACAAAGAGATGAATA
ATTCCATGGGCCAGTATGCCAGTTTGAATTCTCAGTCTCCTAGCATCTTGTGAGTTGCATATTAAGATTACTGGA
ATGGTTAAGTCATGGTTCTGAGAAAGAAGCTGTACGTTTTCTTTATGTTTTTATGACCAAAGCAGTTTCTTGTCA
ATACACGGGGTTCAGTATGACACAGAATCATGGACTTAACCCGTCATGTTCTGGTTTGAGATTTAGTGACAAATA
GAGGTGGGAAGCTTATAATCTAATTTTAGGAGGACCAAATTCAGCGGATGGCAACTGGAACATTGATTGTAAGGC
CAGTGAAGTTTTCACCCAACTGGAATTTGATGGAAAGAAGGTTTGTGTGTTTAAGACGCCAAGGGCATTGCAGAA
TCCCTCTCAGTGGACAGTATGCACTCAGCTGACCACTCTCTCTAGAAATAGTCAAGATATGAACTAAGAAATTTT
AATGCAAATACATACATTCCTGAAAGACGGGGAATTAAATTACTAATTTTTTTTTTTAAATGATGACAGTGGTC
CCAGAACTTGGAAAAGTTGTAGGGATTTCTAAACTCAAGCAGATTCGCAAGTGCTGTGCGCTTGTCAGACCATCA
GACCAGGGCCAACCAATCAGAAGGCAACTTACTGTATAAATTATGCAGAGTTATTTCCTATATCTCACAGTATT
AAAAAATAAATAATTAAAAATTAAGAATAAATAAACGAGTTGACCTCGGTCACAAAAGCAGTTTTACTATCGAAT
CAATCGCTGTTATTTTTTTTTAATGTAATTTGTACATCTTTTTTCAATCTGTACATTGGGCTGTCTTGTATGTT
TTTATGCTCCTTTTTAAAAAGCATAATATGCCTATAGCTGAAAAGGAAACAGGGCTGTTAAGTCACTGACTTAT
GAGAAAGCAAAGCACTGGTACAGTTATTTAACAGGCATACACAAGCAGGGAAAAGATAATCCATTTAGATCTTTA
ATGCTTTGGAAATGCGTGTAACAGTACTGCAATAATCACAGCTCTGGGAAAAACAACGAAACTTTCCCTTGTGGA
GAGGAGGGATTTTCCTGCTCTATATAAGCAACATATTTTTAGACATTAAAATATATATAATTTTGCAGGTAATTG
TTGACTTTTTTAACTATATTAAGTGTTAAGCTGACAACTGTCAAAGAAGACCATGTTGTAAAATAATTTGACTAA
ATAAATGGTTCCTTCTCTCAAAAAAAAAAAAAA

FIGURE 767

MDGTIKEALSVVSDDQSLFDSAYGAAAHLPKADMTASGSPDYGQPHKINPLPPQQEWINQPVRVNVKREYDHMNG
SRESPVDCSVSKCSKLVGGGESNPMNYNSYMDEKNGPPPPNMTTNERRVIVPADPTLWTQEHVRQWLEWAIKEYS
LMEIDTSFFQNMDGKELCKMNKEDFLRATTLYNTEVLLSHLSYLRESSLLAYNTTSHTDQSSRLSVKEDPSYDSV
RRGAWGNNMNSGLNKSPPLGGAQTISKNTEQRPQPDPYQILGPTSSRLANPGSGQIQLWQFLLELLSDSANASCI
TWEGTNGEFKMTDPDEVARRWGERKSKPNMNYDKLSRALRYYYDKNIMTKVHGKRYAYKFDFHGIAQALQPHPTE
SSMYKYPSDISYMPSYHAHQQKVNFVPPHPSSMPVTSSSFFGAASQYWTSPTGGIYPNPNVPRHPNTHVPSHLGS
YY

FIGURE 768

GTTTGTTGGCTGCGGCAGCAGGTAGCAAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTGGAGA
ACCAGCGGTTACC**ATG**GAGGGGATCAGTATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGACTA
TGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTACTC
CATCATCTTCTTAACTGGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAG
CATGACGGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTTCTGGGCAGT
TGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACAGTCAACCTCTA
CAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCCACGCCACCAACAGTCAGAG
GCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCCTCCTGCTGACTATTCCCGA
CTTCATCTTTGCCAACGTCAGTGAGGCAGATGACAGATATATCTGTGACCGCTTCTACCCCAATGACTTGTGGGT
GGTTGTGTTCCAGTTTCAGCACATCATGGTTGGCCTTATCCTGCCTGGTATTGTCATCCTGTCCTGCTATTGCAT
TATCATCTCCAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCT
GGCTTTCTTCGCCTGTTGGCTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAA
GCAAGGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTCTTCCACTGTTG
TCTGAACCCCATCCTCTATGCTTTCCTTGGAGCCAAATTTAAAACCTCTGCCCAGCACGCACTCACCTCTGTGAG
CAGAGGGTCCAGCCTCAAGATCCTCTCCAAAGGAAAGCGAGGTGGACATTCATCTGTTTCCACTGAGTCTGAGTC
TTCAAGTTTTCACTCCAGC**TAA**CACAGATGTAAAAGACTTTTTTTATACGATAAATAACTTTTTTTTAAGTTAC
ACATTTTTCAGATATAAAAGACTGACCAATATTGTACAGTTTTTATTGCTTGTTGGATTTTTGTCTTGTGTTTCT
TTAGTTTTTGTGAAGTTTAATTGACTTATTTATATAAATTTTTTTTGTTTCATATTGATGTGTGTCTAGGCAGGA
CCTGTGGCCAAGTTCTTAGTTGCTGTATGTCTCGTGGTAGGACTGTAGAAAAGGGAACTGAACATTCCAGAGCGT
GTAGTGAATCACGTAAAGCTAGAAATGATCCCCAGCTGTTTATGCATAGATAATCTCTCCATTCCCGTGGAACGT
TTTTCCTGTTCTTAAGACGTGATTTTGCTGTAGAAGATGGCACTTATAACCAAAGCCCAAAGTGGTATAGAAATG
CTGGTTTTTCAGTTTTCAGGAGTGGGTTGATTTCAGCACCTACAGTGTACAGTCTTGTATTAAGTTGTTAATAAA
AGTACATGTTAAACTTACTTAGTGTTATG

FIGURE 769

MEGISIYTSDNYTEEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVMGYQKKLRSMTDK
YRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSSVLILAFISLDRYLAIVHATNSQRPRKL
LAEKVVYVGVWIPALLLTIPDFIFANVSEADDRYICDRFYPNDLWVVVFQFQHIMVGLILPGIVILSCYCIIISK
LSHSKGHQKRKALKTTVILILAFFACWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLNPI
LYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS

FIGURE 770

TGCCTGCTGAGGGTGGAGACCCACGAGCCGAGGCCTCCTGCAGTGTTCTGCACAGCAAACCGCACGCT**ATG**GCTG
ACAGCCGGGATCCCGCCAGCGACCAGATGCAGCACTGGAAGGAGCAGCGGGCCGCGCAGAAAGCTGATGTCCTGA
CCACTGGAGCTGGTAACCCAGTAGGAGACAAACTTAATGTTATTACAGTAGGGCCCCGTGGGCCCCTTCTTGTTC
AGGATGTGGTTTTCACTGATGAAATGGCTCATTTTGACCGAGAGAGAATTCCTGAGAGAGTTGTGCATGCTAAAG
GAGCAGGGGCCTTTGGCTACTTTGAGGTCACACATGACATTACCAAATACTCCAAGGCAAAGGTATTTGAGCATA
TTGGAAAGAAGACTCCCATCGCAGTTCGGTTCTCCACTGTTGCTGGAGAATCGGGTTCAGCTGACACAGTTCGGG
ACCCTCGTGGGTTTGCAGTGAAATTTTACACAGAAGATGGTAACTGGGATCTCGTTGGAAATAACACCCCCATTT
TCTTCATCAGGGATCCCATATTGTTTCCATCTTTTATCCACAGCCAAAGAGAAATCCTCAGACACATCTGAAGG
ATCCGGACATGGTCTGGGACTTCTGGAGCCTACGTCCTGAGTCTCTGCATCAGGTTTCTTTCTTGTTCAGTGATC
GGGGGATTCCAGATGGACATCGCCACATGAATGGATATGGATCACATACTTTCAAGCTGGTTAATGCAAATGGGG
AGGCAGTTTATTGCAAATTCCATTATAAGACTGACCAGGGCATCAAAAACCTTTCTGTTGAAGATGCGGCGAGAC
TTTCCCAGGAAGATCCTGACTATGGCATCCGGGATCTTTTTAACGCCATTGCCACAGGAAAGTACCCCTCCTGGA
CTTTTTACATCCAGGTCATGACATTTAATCAGGCAGAAACTTTTCCATTTAATCCATTCGATCTCACCAAGGTTT
GGCCTCACAAGGACTACCCTCTCATCCCAGTTGGTAAACTGGTCTTAAACCGGAATCCAGTTAATTACTTTGCTG
AGGTTGAACAGATAGCCTTCGACCCAAGCAACATGCCACCTGGCATTGAGGCCAGTCCTGACAAAATGCTTCAGG
GCCGCCTTTTTGCCTATCCTGACACTCACCGCCATCGCCTGGGACCCAATTATCTTCATATACCTGTGAACTGTC
CCTACCGTGCTCGAGTGGCCAACTACCAGCGTGATGGCCCGATGTGCATGCAGGACAATCAGGGTGGTGCTCCAA
ATTACTACCCCAACAGCTTTGGTGCTCCGGAACAACAGCCTTCTGCCCTGGAGCACAGCATCCAATATTCTGGAG
AAGTGCGGAGATTCAACACTGCCAATGATGATAACGTTACTCAGGTGCGGGCATTCTATGTGAACGTGCTGAATG
AGGAACAGAGGAAACGTCTGTGTGAGAACATTGCCGGCCACCTGAAGGATGCACAAATTTTCATCCAGAAGAAAG
CGGTCAAGAACTTCACTGAGGTCCACCCTGACTACGGGAGCCACATCCAGGCTCTTCTGGACAAGTACAATGCTG
AGAAGCCTAAGAATGCGATTCACACCTTTGTGCAGTCCGGATCTCACTTGGCGGCAAGGGAGAAGGCAAATCTG**T**
GAGGCCGGGGCCCTGCACCTGTGCAGCGAAGCTTAGCGTTCATCCGTGTAACCCGCTCATCACTGGATGAAGATT
CTCCTGTGCTAGATGTGCAAATGCAAGCTAGTGGCTTCAAAATAGAGAATCCCACTTTCTATAGCAGATTGTGTA
ACAATTTTAATGCTATTTCCCCAGGGGAAAATGAAGGTTAGGATTTAACAGTCATTTAAAAAAAAAATTTGTTTT
GACGGATGATTGGATTATTCATTTAAAATGATTAGAAGGCAAGTTTCTAGCTAGAAATATGATTTTATTTGACAA
AATTTGTTGAAATTATGTATGTTTACATATCACCTCATGGCCTATTATATTAAAATATGGCTATAAATATATAAA
AAGAAAAGATAAAGATGATCTACTCAGAAATTTTTATTTTTCTAAGGTTCTCATAGGAAAAGTACATTTAATACA
GCAGTGTCATCAGAAGATAACTTGAGCACCGTCATGGCTTAATGTTTATTCCTGATAATAATTGATCAAATTCAT
TTTTTCACTGGAGTTACATTAATGTTAATTCAGCACTGATTTCACAACAGATCAATTTGTAATTGCTTACATTT
TTACAATAAATAATCTGTACGTAAGAACA

FIGURE 771

MADSRDPASDQMQHWKEQRAAQKADVLTTGAGNPVGDKLNVITVGPRGPLLVQDVVFTDEMAHFDRERIPERVVH
AKGAGAFGYFEVTHDITKYSKAKVFEHIGKKTPIAVRFSTVAGESGSADTVRDPRGFAVKFYTEDGNWDLVGNNT
PIFFIRDPILFPSFIHSQKRNPQTHLKDPDMVWDFWSLRPESLHQVSFLFSDRGIPDGHRHMNGYGSHTFKLVNA
NGEAVYCKFHYKTDQGIKNLSVEDAARLSQEDPDYGIRDLFNAIATGKYPSWTFYIQVMTFNQAETFPFNPFDLT
KVWPHKDYPLIPVGKLVLNRNPVNYFAEVEQIAFDPSNMPPGIEASPDKMLQGRLFAYPDTHRHRLGPNYLHIPV
NCPYRARVANYQRDGPMCMQDNQGGAPNYYPNSFGAPEQQPSALEHSIQYSGEVRRFNTANDDNVTQVRAFYVNV
LNEEQRKRLCENIAGHLKDAQIFIQKKAVKNFTEVHPDYGSHIQALLDKYNAEKPKNAIHTFVQSGSHLAAREKA
NL

FIGURE 772A

ACAGCACAGACAGATTGACCTATTGGGGTGTTTCGCGAGTGTGAGAGGGAAGCGCCGCGGCCTGTATTTCTAGAC
CTGCCCTTCGCCTGGTTCGTGGCGCCTTGTGACCCCGGGCCCCTGCCGCCTGCAAGTCGGAAATTGCGCTGTGCT
CCTGTGCTACGGCCTGTGGCTGGACTGCCTGCTGCTGCCCAACTGGCTGGCAAG**ATG**AAGCTCTCCCTGGTGGCC
GCGATGCTGCTGCTGCTCAGCGCGGCGCGGGCCGAGGAGGAGGACAAGAAGGAGGACGTGGGCACGGTGGTCGGC
ATCGACCTGGGGACCACCTACTCCTGCGTCGGCGTGTTCAAGAACGGCCGCGTGGAGATCATCGCCAACGATCAG
GGCAACCGCATCACGCCGTCCTATGTCGCCTTCACTCCTGAAGGGGAACGTCTGATTGGCGATGCCGCCAAGAAC
CAGCTCACCTCCAACCCCGAGAACACGGTCTTTGACGCCAAGCGGCTCATCGGCCGCACGTGGAATGACCCGTCT
GTGCAGCAGGACATCAAGTTCTTGCCGTTCAAGGTGGTTGAAAAGAAAACTAAACCATACATTCAAGTTGATATT
GGAGGTGGGCAAACAAAGACATTTGCTCCTGAAGAAATTTCTGCCATGGTTCTCACTAAAATGAAAGAAACCGCT
GAGGCTTATTTGGGAAAGAAGGTTACCCATGCAGTTGTTACTGTACCAGCCTATTTTAATGATGCCCAACGCCAA
GCAACCAAAGACGCTGGAACTATTGCTGGCCTAAATGTTATGAGGATCATCAACGAGCCTACGGCAGCTGCTATT
GCTTATGGCCTGGATAAGAGGGAGGGGGAGAAGAACATCCTGGTGTTTGACCTGGGTGGCGGAACCTTCGATGTG
TCTCTTCTCACCATTGACAATGGTGTCTTCGAAGTTGTGGCCACTAATGGAGATACTCATCTGGGTGGAGAAGAC
TTTGACCAGCGTGTCATGGAACACTTCATCAAACTGTACAAAAAGAAGACGGGCAAAGATGTCAGGAAAGACAAT
AGAGCTGTGCAGAAACTCCGGCGCGAGGTAGAAAAGGCCAAACGGGCCCTGTCTTCTCAGCATCAAGCAAGAATT
GAAATTGAGTCCTTCTATGAAGGAGAAGACTTTTCTGAGACCCTGACTCGGGCCAAATTTGAAGAGCTCAACATG
GATCTGTTCCGGTCTACTATGAAGCCCGTCCAGAAAGTGTTGGAAGATTCTGATTTGAAGAAGTCTGATATTGAT
GAAATTGTTCTTGTTGGTGGCTCGACTCGAATTCCAAAGATTCAGCAACTGGTTAAAGAGTTCTTCAATGGCAAG
GAACCATCCCGTGGCATAAACCCAGATGAAGCTGTAGCGTATGGTGCTGCTGTCCAGGCTGGTGTGCTCTCTGGT
GATCAAGATACAGGTGACCTGGTACTGCTTGATGTATGTCCCCTTACACTTGGTATTGAAACTGTGGGAGGTGTC
ATGACCAAACTGATTCCAAGGAACACAGTGGTGCCTACCAAGAAGTCTCAGATCTTTTCTACAGCTTCTGATAAT
CAACCAACTGTTACAATCAAGGTCTATGAAGGTGAAAGACCCCTGACAAAAGACAATCATCTTCTGGGTACATTT
GATCTGACTGGAATTCCTCCTGCTCCTCGTGGGGTCCCACAGATTGAAGTCACCTTTGAGATAGATGTGAATGGT
ATTCTTCGAGTGACAGCTGAAGACAAGGGTACAGGGAACAAAAATAAGATCACAATCACCAATGACCAGAATCGC
CTGACACCTGAAGAAATCGAAAGGATGGTTAATGATGCTGAGAAGTTTGCTGAGGAAGACAAAAAGCTCAAGGAG
CGCATTGATACTAGAAATGAGTTGGAAAGCTATGCCTATTCTCTAAAGAATCAGATTGGAGATAAAGAAAAGCTG
GGAGGTAAACTTTCCTCTGAAGATAAGGAGACCATGGAAAAAGCTGTAGAAGAAAGATTGAATGGCTGGAAAGC
CACCAAGATGCTGACATTGAAGACTTCAAAGCTAAGAAGAAGGAACTGGAAGAAATTGTTCAACCAATTATCAGC
AAACTCTATGGAAGTGCAGGCCCTCCCCCAACTGGTGAAGAGGATACAGCAGAAAAGATGAGTTG**TAG**ACACTG
ATCTGCTAGTGCTGTAATATTGTAAATACTGGACTCAGGAACTTTTGTTAGGAAAAAATTGAAAGAACTTAAGTC
TCGAATGTAATTGGAATCTTCACCTCAGAGTGGAGTTGAAACTGCTATAGCCTAAGCGGCTGTTTACTGCTTTTC
ATTAGCAGTTGCTCACATGTCTTTGGGTGGGGGGGAGAAGAAGAATTGGCCATCTTAAAAAGCAGGTAAAAAACC
TGGGTTAGGGTGTGTGTTCACCTTCAAAATGTTCTATTTAACAACTGGGTCATGTGCATCTGGTGTAGGAAGTTT
TTTCTACCATAAGTGACACCAATAAATGTTTGTTATTTACACTGGTCTAATGTTTGTGAGAAGCTTCTAATTAGA
TCAATTACTTATTTTAGGAAATTTAAGACTAGATACTCGTGTGTGGGGTGAGGGGAGGGAGTATTTGGTATGTTG
GGATAAGGAAACACTTCTATTTAATGCTTCCAGGGATTTTTTTTTTTTTTTTTAACCCTCCTGGGCCCAAGTGA
TCCTTCCACCTCAGTCTCCCAGCTAATTGAGACCACAGGCTTGTTACCACCATGCTCGGCTTTTGCATTAATCTA
AGAAAAGGGGAGAGAAGTTAATCCACATCTTTACTCAGGCAAGGGGCATTTCACAGTGCCCAAGAGTGGGGTTTT
CTTGAACATACTTGGTTTCCTATTTCCCCTTATCTTTCTAAAACTGCCTTTCTGGTGGCTTTTTTAAAATTATT
ACTAATGATGCTTTTATAGCTGCTTGGATTCTCTGAGAAATGATGGGGAGTGAGTGATCACTGGTATTAACTTTA
TACACTTGGATTTCATTTGTAACTTTAGGATGTAAAGGTATATTGTGAACCCTAGCTGTGTCAGAATCTCCATCC
CTGAAATTTCTCATTAGTGGTACTGGGGTGGATCTTGGATGGTGACATTGAAACTACACTAAATCCCCTCACTA
TGAATGGGTTGTTAAAGGCAATGGTTTGTGTCAAAACTGGTTTAGGATTACTTAGATTGTGTTCCTGAAGAAAAG
AGTCCAGGTAAATGGTATGATCAATAAAGGACAGGCTGGTGCTAACATAAAATCCAATATTGTAATCCTAGCACT
TTGGGAGGCCAAGGCGGGTGGATCACAAGGTCAAGAGATAGAGACCATCTTTGCCAACATGGTGAAACTCCATCT
CTACTGAAAATACAAAAATTAGCTGGGCGTGGTAGTGCAAGCTGAAGGCTGAGGCAGGAGAATCACTCGAACCCG
GGAGGCAGAGGTTGCAGTGAGCCGAGATCACACCACTGTACTCCAGCCCGGCACTCCAGCCTGGCGACAAGAGTG
AGACTCCACCTCAAAAAAAAAAAAAAGAATCCAATACTGCCCAAGGATAGGTATTTTATAGATGGGCAACTGGCT

FIGURE 772B

GAAAGGTTAATTCTCTAGGGCTAGTAGAACTGGATCCCAACACCAAACTCTTAATTAGACCTAGGCCTCAGCTGC
ACTGCCCGAAAAGCATTTGGGCAGACCCTGAGCAGAATACTGGTCTCAGGCCAAGCCCAATACAGCCATTAAAGA
TGACCTACAGTGCTGTGTACCCTGGGGCAATAGGGTTAAATGGTAGTTAGCAACTAGGGCTAGTCTTCCCTTACC
TCAAAGGCTCTCACTACCGTGGACCACCTAGTCTGTAACTCTTTCTGAGGAGCTGTTACTGAATATTAAAAAGAT
AGACTTCAAAAAAAAAAAAAAAAAAA

FIGURE 773

MKLSLVAAMLLLLSAARAEEEDKKEDVGTVVGIDLGTTYSCVGVFKNGRVEIIANDQGNRITPSYVAFTPEGERL
IGDAAKNQLTSNPENTVFDAKRLIGRTWNDPSVQQDIKFLPFKVVEKKTKPYIQVDIGGGQTKTFAPEEISAMVL
TKMKETAEAYLGKKVTHAVVTVPAYFNDAQRQATKDAGTIAGLNVMRIINEPTAAAIAYGLDKREGEKNILVFDL
GGGTFDVSLLTIDNGVFEVVATNGDTHLGGEDFDQRVMEHFIKLYKKKTGKDVRKDNRAVQKLRREVEKAKRALS
SQHQARIEIESFYEGEDFSETLTRAKFEELNMDLFRSTMKPVQKVLEDSDLKKSDIDEIVLVGGSTRIPKIQQLV
KEFFNGKEPSRGINPDEAVAYGAAVQAGVLSGDQDTGDLVLLDVCPLTLGIETVGGVMTKLIPRNTVVPTKKSQI
FSTASDNQPTVTIKVYEGERPLTKDNHLLGTFDLTGIPPAPRGVPQIEVTFEIDVNGILRVTAEDKGTGNKNKIT
ITNDQNRLTPEEIERMVNDAEKFAEEDKKLKERIDTRNELESYAYSLKNQIGDKEKLGGKLSSEDKETMEKAVEE
KIEWLESHQDADIEDFKAKKKELEEIVQPIISKLYGSAGPPPTGEEDTAEKDEL

FIGURE 774A

```
TCTCACTATAGGGCTCGAGCGGCCGCCCGGGCAGGTCTGACCACAGTGGTTCCGGGGAGAAGCCTTCCAGGACCC
ATGTGTAGGCACAACTGTTTTCCCTGATCAGGATACTTCCGGCACTCAACAGAGGAAAGAAATTCCTAAGGGAAC
ACTGCTCAGAAAGTACTGCAGCATGTCTTCAAATGCCTGAGGATCAAGTTGGAAAACTAGAAGCAACAGAAAACA
CAATAAGCGCAATGGCGGCGGCCGCGGCGGAGCAGCAACAGTTCTACCTGCTGCTGGGAAACCTGCTCAGCCCCG
ACAATGTGGTCCGGAAACAGGCAGAGGAAACCTATGAGAATATCCCAGGCCAGTCAAAGATCACATTCCTCTTAC
AAGCCATCAGAAATACAACAGCTGCTGAAGAGGCTAGACAAATGGCCGCCGTTCTCCTAAGACGTCTCTTGTCCT
CTGCATTTGATGAAGTCTATCCAGCACTTCCCTCTGATGTTCAGACTGCCATCAAGAGTGAGCTACTCATGATTA
TTCAGATGGAAACACAATCTAGCATGAGGAAAAAGTTTGTGATATTGCGGCAGAACTGGCCAGGAATTTAATAG
ATGAGGATGGCAATAACCAGTGGCCCGAAGGTTTGAAGTTCCTTTTTGATTCAGTCAGCTCTCAAAATGTGGGAC
TGCGGGAAGCTGCCCTTCACATTTTCTGGAACTTTCCTGGAATTTTTGGGAACCAGCAACAACACTATTTAGATG
TCATCAAACGAATGTTAGTTCAGTGTATGCAAGATCAGGAACACCCGTCGATCAGGACGTTATCTGCTAGAGCTA
CAGCTGCATTTATACTTGCAAATGAGCATAATGTTGCTCTGTTCAAACATTTTGCAGACTTGCTACCGGGATTCC
TACAGGCGGTAAATGACTCGTGCTACCAGAATGATGATTCTGTCCTAAAATCCCTCGTTGAGATTGCAGATACTG
TTCCAAAGTATTTGCGTCCTCACTTGGAAGCAACTCTACAGCTAAGTCTAAAGTTGTGTGGAGACACTAGCCTCA
ACAATATGCAACGCCAGCTTGCCCTTGAAGTGATCGTCACCCTCTCTGAGACTGCAGCTGCTATGTTAAGAAAAC
ATACCAATATTGTTGCACAGACTATTCCTCAGATGTTAGCAATGATGGTTGATTTGGAAGAAGATGAGGACTGGG
CAAATGCAGATGAACTAGAAGATGATGATTTTGACAGCAATGCAGTTGCAGGCGAGAGTGCTCTAGATCGAATGG
CTTGCGGACTTGGTGGAAAGCTCGTTCTGCCGATGATCAAGGAACACATTATGCAAATGCTTCAAAATCCTGACT
GGAAATACCGGCATGCAGGATTGATGGCCTTATCTGCCATTGGTGAAGGGTGCCACCAGCAAATGGAAGGAATTC
TAAATGAGATCGTAAATTTTGTTTTACTTTTTCTCCAGGATCCTCATCCAAGAGTAAGGTATGCAGCCTGTAATG
CCGTGGGACAGATGGCTACAGATTTTGCACCTGGTTTCCAAAAGAAATTTCATGAGAAGGTGATTGCAGCTCTGC
TGCAGACCATGGAAGACCAAGGCAATCAACGTGTGCAGGCCCATGCAGCTGCTGCCCTCATTAACTTTACTGAAG
ACTGTCCCAAGTCACTACTTATTCCATACTTGGATAATTTGGTGAAACATCTGCATTCCATTATGGTACTGAAGC
TTCAAGAGCTGATTCAGAAAGGCACCAAGTTAGTTTTGGAACAAGTTGTGACATCCATTGCATCAGTTGCCGATA
CTGCAGAAGAAAAATTTGTCCCCTACTATGATTTATTTATGCCATCACTGAAGCACATCGTTGAGAATGCGGTTC
AAAAAGAACTGAGACTTCTGAGAGGAAAAACTATTGAATGCATTAGCCTCATTGGTCTGGCTGTTGGGAAGGAAA
AATTCATGCAGGATGCATCAGATGTGATGCAGCTTTTGTTAAAGACCCAGACAGACTTCAATGATATGGAAGATG
ATGATCCTCAGATCTCTTACATGATCTCAGCATGGGCCAGAATGTGCAAAATCCTTGGAAAAGAATTTCAGCAAT
ACCTTCCAGTGGTTATGGGGCCTTTAATGAAGACGGCTTCAATTAAGCCCGAAGTAGCCCTTTTAGATACCCAAG
ACATGGAGAATATGAGTGATGATGATGGTTGGGAATTTGTGAACCTTGGAGATCAGCAAAGCTTTGGTATTAAAA
CTGCAGGACTAGAAGAAAATCAACTGCTTGCCAGATGTTGGTTTGCTATGCTAAGGAGTTAAAGGAAGGCTTTG
TGGAGTACACCGAACAGGTTGTCAAACTGATGGTCCCTTTACTGAAATTTTATTTCCACGATGGTGTTCGAGTGG
CAGCAGCGGAATCCATGCCTCTTCTCCTGGAGTGTGCAAGAGTCCGTGGTCCTGAGTATCTCACACAGATGTGGC
ATTTTATGTGTGATGCTCTAATTAAGGCCATTGGTACAGAACCAGATTCAGACGTCCTCTCAGAAATAATGCATT
CTTTTGCAAAGTGCATTGAAGTAATGGGAGATGGATGCCTTAATAATGAACACTTTGAAGAACTGGGAGGTATAT
TGAAAGCAAAGCTTGAAGAACATTTTAAAAATCAAGAATTACGACAAGTTAAAAGACAAGATGAAGACTATGATG
AACAGGTCGAAGAGTCACTACAAGATGAGGATGATAATGATGTTTATATTCTGACCAAAGTGTCAGATATTTAC
ACTCAATATTCAGTAGCTACAAAGAAAAGGTGTTACCATGGTTTGAACAGCTGCTTCCATTAATTGTCAACCTCA
TTTGTCCACATAGACCATGGCCAGACAGACAATGGGGATTATGCATCTTTGATGATGTCATAGAACACTGTAGTC
CAGCCTCATTTAAATACGCAGAATATTTCTTAAGACCAATGCTCCAATATGTATGTGACAACAGCCCAGAAGTCA
GGCAAGCAGCTGCATATGGCCTGGGAGTCATGGCACAGTACGGTGGAGATAATTATCGCCCTTTTTGTACAGAAG
CACTTCCCCTGCTGGTAAGAGTTATTCAGTCTGCGGATTCTAAGACCAAAGAAAATGTCAATGCTACAGAGAACT
GCATCTCAGCAGTAGGGAAATCATGAAGTTCAAGCCTGACTGTGTAAACGTTGAAGAGGTCCTTCCACACTGGT
TGTCTTGGCTTCCACTACATGAAGATAAAGAAGAAGCTGTTCAGACTTTCAATTATCTGTGTGACCTGATTGAAA
GTAATCATCCAATTGTTCTTGGCCCAAACAATACCAATCTGCCCAAAATATTTAGTATAATTGCGGAAGGAGAAA
TGCACGAGGCAATTAAACATGAAGATCCTTGTGCCAAACGTCTGGCCAATGTCGTTCGCCAAGTACAGACTTCTG
GAGGACTGTGGACTGAGTGCATAGCACAGCTCAGTCCTGAGCAGCAGGCCGCCATTCAGGAGCTCCTGAACTCTG
CGTGAAGGGCCTTAATGTCACCCACCAGAAAACTAACTCCAAATAAACGCTTACCCTTTCCTTTAGGTTTCTTTG
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FIGURE 774B

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TTTTGTTTTTGAGCAAAAGAGATCGGTAGTGTTGTGTGTAGGCCATTCTTCTGGAGAGCCACAAGCAGGAAGAGC
AGCGCTGTGTTGCAGAATGGAGTTTCCATGGATTTCTACCAGACCACTGAAGGAGTTCCTGGAAGCCCTGCGTAC
GTAGCACTGAAGACTATTTTTCTATTGGTATAACCCGCCCACCTGAAGGGGAAAGGGAAATCAAATTAATTTTTC
TCGTTAGACATAAGGAAATTTAAGGAAAAACAGCTTTAAGAACAGTTACTCAGCGTAGATGTGTGTTCACACAAA
TTGCCTTGCATTCAGTGTTCATTGTGAATTGGGAGTGTGAGTCTTTCTGTAGGGTACAAAGAAGCCTCCTACCCA
GCAAACCAGTAGACCCAAAAGTTGAAAAAAACTGGATGACAGACAACAAGCATGAAGATGGCATATTTGATGTCA
CTTTGGTTCTTTTTCCCAGAAGGCTTATACAGTGACTCAGTCGGGAAGCTTTCCAGCTTCAGCCCTTGAATGTGA
AGTGTCATTGGCATGTCTGGCAGTAGTCTCTCATTCACTCCCAATAAACAACATTGAATACAAAAGAGGCTTGTG
TAAAAACTCAGTACTGTCTGGCTTGGATTCATTTCATGTTTTTTAATATAAGAATGATCTAATATTTTTTTAAAG
TAATAGCTATCAGTAATAGCTGAGTGTTTTTTCCCCTAATATTTTCCTTGTGCAATTCAGACTTAAGCATCGAGT
TTTTACCATCTTCCACTTTAAGCTAAGTTATGATACCTATTCCATTCACAATTGGTGTTCTTTTTAAGGTTTGCA
AATTTCAGCCAATTTTGTAGCTAAGATTGTTCTGATCAGCTCAAAAAGATTTGGCTTAGTGTTTTCATTGCAAAT
TATAATTGCTGTAGAGCCACACACAACTTTTGAACTTTTAATTATAAGTGTTATGGCTAAAGTTATTTACTGAAA
ATTTCAGTAAAATGTGTGAATGTTTCTTTATGTATTAACCTCATAGCAGTAAATGACTTGCTGTTGTTTAATTTT
TCTAAGGCATCTTAATAGACTTCTCTTGGAAAAACCTTTCCAAGGTGTTAACATTTTATAGTTTGTACTAAATT
TAACCGTGATATAAAAATGAATTTTATGCATAGATCAGAATTTTAAATTAAAGGTTTTTTCTTTAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAA
```

FIGURE 775

MAAAAAEQQQFYLLLGNLLSPDNVVRKQAEETYENIPGQSKITFLLQAIRNTTAAEEARQMAAVLLRRLLSSAFD
EVYPALPSDVQTAIKSELLMIIQMETQSSMRKKVCDIAAELARNLIDEDGNNQWPEGLKFLFDSVSSQNVGLREA
ALHIFWNFPGIFGNQQQHYLDVIKRMLVQCMQDQEHPSIRTLSARATAAFILANEHNVALFKHFADLLPGFLQAV
NDSCYQNDDSVLKSLVEIADTVPKYLRPHLEATLQLSLKLCGDTSLNNMQRQLALEVIVTLSETAAAMLRKHTNI
VAQTIPQMLAMMVDLEEDEDWANADELEDDDFDSNAVAGESALDRMACGLGGKLVLPMIKEHIMQMLQNPDWKYR
HAGLMALSAIGEGCHQQMEGILNEIVNFVLLFLQDPHPRVRYAACNAVGQMATDFAPGFQKKFHEKVIAALLQTM
EDQGNQRVQAHAAAALINFTEDCPKSLLIPYLDNLVKHLHSIMVLKLQELIQKGTKLVLEQVVTSIASVADTAEE
KFVPYYDLFMPSLKHIVENAVQKELRLLRGKTIECISLIGLAVGKEKFMQDASDVMQLLLKTQTDFNDMEDDDPQ
ISYMISAWARMCKILGKEFQQYLPVVMGPLMKTASIKPEVALLDTQDMENMSDDDGWEFVNLGDQQSFGIKTAGL
EEKSTACQMLVCYAKELKEGFVEYTEQVVKLMVPLLKFYFHDGVRVAAAESMPLLLECARVRGPEYLTQMWHFMC
DALIKAIGTEPDSDVLSEIMHSFAKCIEVMGDGCLNNEHFEELGGILKAKLEEHFKNQELRQVKRQDEDYDEQVE
ESLQDEDDNDVYILTKVSDILHSIFSSYKEKVLPWFEQLLPLIVNLICPHRPWPDRQWGLCIFDDVIEHCSPASF
KYAEYFLRPMLQYVCDNSPEVRQAAAYGLGVMAQYGGDNYRPFCTEALPLLVRVIQSADSKTKENVNATENCISA
VGKIMKFKPDCVNVEEVLPHWLSWLPLHEDKEEAVQTFNYLCDLIESNHPIVLGPNNTNLPKIFSIIAEGEMHEA
IKHEDPCAKRLANVVRQVQTSGGLWTECIAQLSPEQQAAIQELLNSA

FIGURE 776A

CGAAGGACCTGAAGGAAAGTGGAAAAGTCCAAAGTTTAAGATGCCAGAGATGCATTTTAAGACTCCAAAGATATC
CATGCCAGATATTGACCTGAATCTCACAGGTCCAAAAATAAAAGGAGATGTGGATGTTACAGGCCCTAAGGTAGA
GGGAGATCTGAAAGGTCCTGAAGTTGACCTCAAAGGCCCCAAAGTGGACATTGATGTCCCAGATGTTAATGTTCA
GGGTCCAGACTGGCACCTGAAGATGCCCAAGATGAAAATGCCTAAGTTCAGTATGCCTGGCTTCAAAGGAGAGGG
CCCAGATGGTGGATGTGAAGCTGCCCATAGGCTGACATTGATGTCTCAGGACCAAAGTGGACATTGAAGGCCCTG
ATGTTAACATTGAAGGACCAGAGGGAAAGTTGAAAGGGCCTAAGTTCAAGATGCCAGAGATGAATATCAAAGCCC
CCAAGATCTCCATGCCTGATATTGACTTAAACCTGAAAGGACCCAAGTGAAGGGTGATGTGGATGTTTCCCTTCC
TAAAGTGGAAGGTGACCTCAAGGGCCCAGAAGTTGACATCAAGGGCCCAAAAGTGGACATTGACGCACCTGATGT
TGATGTTCATGGCCCAGACTGGCACCTAAAGATGCCCAAGATGAAAATGCCCAAGTTCAGCATGCCTGGCTTCAA
AGCAGAGGGCCCTGAAGCTGGAATGTGAACCTGCCCAAGGCTGACGTTGATGTCTCAGGCCCCAAAGTGGATATT
AATGCCCCAGATGTGGGTGTTCAAGGCCCAGACTGGCACCTGAAG**ATG**CCCAAGGTGAAAATGCCAAAGTTCAGC
ATGCCTGGCTTCAAAGGAGAGGGCCCAGATGGGGATGTGAAGCTGCCCAAGGCTGACATTGATGTCTCAGGACCC
AAAGTGGACATTGAAGGCCCTGATGTTAACATTGAAGGACCAGAGGGAAAGTTGAAAGGGCCTAAGTTCAAGATG
CCAGAGATGAATATCAAAGCCCCCAAGATCTCCATGCCTGATATTGACTTAAACCTGAAAGGACCCAAAGTGAAG
GGTGATGTGGATGTTTCCCTTCCTAAAGTGGAAGGTGACCTCAAGGGCCCAGAAGTTGACATCAAGGGCCCAAAA
GTGGACATTGACGCACCTGATGTTGATGTTCATGGCCCAGACTGGCACCTAAAGATGCCCAAGATAAAAATGCCC
AAGATCAGCATGCCTGGCTTCAAAGGAGAAGGTCCAGATGTGGACGTGAACCTGCCCAAGGCTGACATTGATGTC
TCAGGACCGAAAGTGGATGTTGAATGTCCCGATGTGAATATCGAAGGACCTGAAGGAAAGTGGAAAAGTCCAAAG
TTTAAGATGCCAGAGATGCATTTTAAGACTCCAAAGATATCCATGCCAGATATTGACCTGAATCTCACAGGTCCA
AAAATAAAAGGAGATGTGGATGTTACAGGCCCTAAGGTAGAGGGAGATCTGAAAGGTCCTGAAGTTGACCTCAAA
GGCCCCAAAGTGGACATTGATGTCCCAGATGTTAATGTTCAGGGTCCAGACTGGCACCTGAAGATGCCCAAGATG
AAAATGCCCAAGTTCAGCATGCCTGGCTTCAAAGCAGAGGGCCCTGAAGTGGATGTGAACCTGCCCAAGGCTGAC
GTTGATGTCTCAGGCCCCAAAGTGGACGTTGAAGGCCCTGATGTTAACATTGAAGGACCAGAGGGAAAGTTGAAA
GGGCCCAAGTTCAAGATGCCAGAGATGAATATCAAAGCCCCCAAGATCCCCATGCCTGACTTTGATTTGCATCTG
AAAGGTCCCAAGGTGAAGGGCGATGTGGATATTTCTCTGCCCAAAGTGGAAGGTGACCTCAAGGGCCCTGAAGTT
GACATCAGGGGTCCCAAAGTGGACATTGATGTCCCGGATGTGGGCGTTCAAGGCCCAGACTGGCACCTAAAAATG
CCCAAAGTGAAAATGCCCAAATTCAGCATGCCTGGCTTCAAAGGAGAGGGCCCAGATGTGGATGTGAACCTGCCC
AAGGCTGACCTTGATGTCTCAGGACCCAAGGTGGACATTGATGTTCCAGATGTGAATATCGAAGGCCCAGAGGGA
AAGTTGAAAGGTCCCAAATTCAAAATGCCTGAGATGAACATCAAAGCCCCCAAGATCTCCATGCCTGACATTGAT
CTTAACCTGAAAGGTCCCAAAGTGAAGGGTGACATGGATGTGTCTCTGCCAAAAGTGGAAGGTGACATGAAAGTT
CCTGACGTGGATATTAAAGGCCCCAAAGTGGATATTAATGCCCCAGATGTGGATGTTCAAGGCCCAGACTGGCAC
CTGAAGATGCCTAAAATAAAAATGCCCAAGATCAGCATGCCTGGCTTCAAAGGAGAAGGTCCAGAAGTGGACGTG
AACCTGCCCAAGGCTGACCTTGACGTCTCAGGACCCAAGGTGGACGTTGATGTTCCAGATGTGAATATTGAAGGT
CCAGATGCGAAACTGAAGGGCCCTAAATTCAAGATGCCAGAGATGAACATCAAAGCCCCCAAGATCTCCATGCCT
GACTTTGATTTGCATCTGAAAGGCCCTAAGGTGAAAGGAGATGTGGATGTTTCTCTGCCTAAGATGGAAGGTGAT
CTAAAGGGTCCTGAAGTTGACATCAAGGGCCCCAAAGTGGACATTAATGCTCCAGATGTGGATGTTCAAGGCCCA
GACTGGCACCTGAAGATGCCCAAGGTGAAAATGCCCAAGTTCAGCATGCCTGGCTTCAAAGGAGAGGGCCCAGAT
GTGGATGTGAACCTGCCCAAGGCTGACCTTGATGTCTCAGGACCCAAGGTGGACATTGATGTTCCTGATGTGGAT
ATCCGAAGGTCCAGAAGGGAAACTGAAAGGTCCCAAATTCAAGATGCCTGAGATGAGCATCCAAGCCCCCAAGAT
CTCCATGCCTGATATTGACTTAAACCTGAAAGGACCCAAAGTGAAGGGCGATGTGGATGTTACCCTTCCTAAAGT
GGAAGGTGACCTCAAGGGCCCAGAAGCTGACATCAAGGGCCCAAAAGTGGACATCAACACCCCTGATGTGGATGT
TCATGGCCCAGACTGGCACCTGAAGATGCCCAAGGTGAAAATGCCCAAATTCAGCATGCCTGGCTTCAAAGGAGA
AGGTCCAGATGTGGATGTGAACCTGCCCAAGGCTGACATTGATGTCTCAGGACCCAAAGTGGACGTTGATGTTCC
TGATGTGAATATCGAAGGTCCAGATGCGAAACTAAAGGGCCCCAAGTTCAAGATGCCTGAGATGAGCATCAAAGC
CCCCAAGATCTCCATGCCTGATATTGACTTAAACCTGAAAGGACCCAAAGTGAAGGGCGATGTGGATGTTACCCT
TCCTAAAGTGGAAGGTGACCTCAAGGGCCCAGAAGCTGACATCAAGGGCCCAAAAGTGGACATCAACACCCCTGA
TGTGGATGTTCATGGCCCAGACTGGCACCTGAAGATGCCCAAGGTGAAAATGCCCAAATTCAGCATGCCTGGCTT
CAAAGGAGAAGGTCCAGATGTGGATGTGAGCCTGCCCAAGGCCGACATCGATGTCTCGGGACCCAAGGTGGACGT

FIGURE 776B

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TGATATTCCAGATGTGAATATCGAAGGTCCAGACGCAAAACTGAAGGGCCCCAAGTTCAAGATGCCTGAAATAAA
TATCAAAGCTCCCAAGATCTCCATACCTGATGTTGACCTGGATTTGAAAGGACCCAAAGTAAAAGGAGATTTTGA
TGTGTCTGTCCCTAAGGTTGAAGGGACTTTGAAAGGCCCAGAAGTAGATCTTAAAGGTCCACGTCTGGATTTCGA
AGGCCCTGATGCCAAACTCAGTGGCCCATCTTTGAAGATGCCATCGCTGGAGATATCTGCTCCTAAAGTAACTGC
TCCTGATGTTGATTTGCATCTCAAGGCACCAAAAATTGGATTTTCAGGTCCGAAGTTAGAAGGTGGTGAAGTGGA
CCTCAAGGGACCCAAAGTTGAAGCTCCAAGCTTAGATGTACACATGGACAGCCCAGATATTAACATCGAAGGGCC
AGATGTTAAAATCCCCAAATTTAAGAAACCCAAGTTTGGATTTGGGGCAAAAAGCCCCAAAGCTGACATCAAGTC
ACCTTCACTGGATGTCACTGTTCCTGAGGCAGAGCTGAACCTTGAGACTCCTGAAATTAGTGTTGGTGGCAAGGG
CAAGAAAAGTAAGTTTAAAATGCCTAAAATTCATATGAGTGGTCCTAAGATTAAGGCCAAAAAAACAGGGATTTG
ACCTGAATGTTCCTGGGGGTGAAATTGATGCCAGCCTCAAGGCTCCGGATGTAGATGTCAACATCGCAGGGCCGG
ATGCTGCACTCAAAGTCGACGTGAAATCGCCCAAAACCAAGAAAACGATGTTTGGAAAAATGTACTTCCCAGATG
TAGAGTTTGACATTAAATCACCTAAATTTAAAGCTGAGGCCCCTCTCCCTAGCCCCAAACTGGAGGGTGAACTCC
AGGCACCTGATCTGGAACTTTCTTTGCCAGCGATTCACGTCGAAGGTCTTGACATCAAGGCGAAGGCTCCCAAGG
TCAAGATGCCAGATGTGGACATCTCAGTGCCAAAAATAGAGGGTGACCTGAAAGGCCCCAAAGTGCAGGCAAACT
TGGGTGCACCTGACATCAACATCGAAGGCCTAGATGCTAAAGTCAAAACACCGTCCTTCGGCATTTCTGCCCCTC
AAGTCTCCATCCCTGATGTGAATGTAAACTTGAAAGGACCAAAGATAAAGGGTGATGTCCCCAGCGTGGGACTGG
AAGGACCAGATGTAGATCTGCAAGGTCCAGAAGCAAAAATTAAGTTCCCCAAGTTTTCCATGCCCAAGATCGGCA
TCCCAGGTGTGAAAATGGAGGGTGGGGGAGCCGAGGTCCATGCCCAGCTACCCTCTCTTGAAGGAGACTTGAGAG
GACCAGATGTTAAGCTCGAAGGGCCCGATGTTTCTCTAAAGGGGCCAGGAGTAGACTTGCCTTCAGTGAACCTCT
CTATGCCAAAAGTCTCTGGGCCTGACCTTGATCTGAACTTGAAAGGACCAAGTTTGAAGGGAGACCTGGATGCAT
CTGTTCCCAGCATGAAGGTGCATGCTCCAGGGCTCAACCTCAGTGGTGTCGGTGGCAAAATGCAGGTGGGAGGAG
ACGGTGTGAAAGTGCCAGGGATCGATGCCACAACAAAGCTTAACGTTGGGGCACCAGATGTGACACTGAGGGGAC
CAAGCCTGCAGGGAGATCTGGCTGTCTCTGGTGACATCAAATGCCCTAAAGTATCCGTAGGAGCTCCTGATCTAA
GCTTGGAGGCATCCGAAGGCAGCATTAAACTTCCCAAAATGAAGCTGCCCCAATTTGGCATCTCTACTCCGGGGT
CCGACTTGCACGTCAATGCCAAGGGGCCACAGGTTTCTGGCGAACTGAAGGGGCCAGGTGTGGATGTGAACCTGA
AAGGGCCTCGGATTTCAGCACCGAATGTGGACTTTAACTTGGAAGGACCAAAAGTGAAAGGGAGCCTTGGGGCCA
CTGGTGAGATCAAAGGCCCCACTGTCGGAGGAGGTCTTCCAGGCATTGGTGTTCAAGGCCTAGAAGGAAACCTCC
AGATGCCTGGAATTAAGTCCTCTGGATGTGATGTGAACCTGCCAGGCGTGAATGTGAAACTCCCAACTGGGCAGA
TTTCTGGGCCTGAAATCAAAGGTGGTCTGAAAGGTTCAGAAGTAGGTTTCCATGGGGCTGCTCCTGATATCAGTG
TGAAGGGGCCTGCCTTTAATATGGCATCTCCTGAGTCAGATTTTGGCATCAACTTGAAGGGCCCAAAAATCAAAG
GAGGTGCGGATGTTTCAGGGGGTGTCAGTGCCCCAGACATCAGCCTTGGTGAAGGGCATTTGAGTGTTAAAGGTT
CCGGGGGTGAGTGGAAGGGACCCCAAGTCTCCTCTGCTCTCAACTTGGACACATCTAAGTTTGCTGGGGGCCTTC
ATTTCTCAGGACCAAAGGTGGAAGGAGGTGTGAAAGGAGGTCAGATTGGACTCCAGGCTCCTGGGCTGAGTGTGT
CTGGGCCTCAAGGTCACTTGGAAAGTGGATCTGGAAAAGTAACATTCCCTAAAATGAAGATCCCCAAATTTACCT
TCTCTGGCCGTGAGCTGGTTGGCAGAGAAATGGGGGTGGATGTTCACTTCCCTAAAGCAGAGGCCAGCATCCAAG
CTGGTGCTGGAGACGGCGAGTGGGAAGAGTCTGAAGTCAAACTGAAAAAGTCCAAGATCAAAATGCCCAAGTTTA
ATTTTTCCAAACCTAAAGGGAAAGTGGTGTCACTGGCTCACCAGAAGCATCAATTTCTGGGTCCAAAGGTGACC
TGAAAAGTTCAAAGGCCAGCCTGGGCTCTCTGGAAGGAGAGGCAGAGGCCGAAGCCTCTTCACCGAAAGGCAAAT
TCTCCTTATTTAAAAGTAAGAAGCCACGGCACCGCTCAAATTCATTCAGTGATGAAAGAGAGTTCTCTGGACCTT
CCACCCCGACGGGGACGCTGGAGTTTGAAGGTGGGGAAGTGTCTCTGGAAGGTGGGAAAGTTAAAGGGAAACACG
GGAAGCTGAAATTCGGTACCTTTGGTGGATTGGGGTCAAAGAGCAAAGGTCATTATGAGGTGACTGGGAGCGATG
ATGAGACAGGCAAGTTACAGGGGAGTGGGGTGTCCCTGGCCTCTAAGAAGTCCCGACTGTCCTCCTCTTCTAGCA
ATGACAGTGGGAATAAGGTTGGCATCCAGCTTCCCGAGGTGGAGCTGTCAGTTTCCACAAAGAAGAG**TAG**CAGG
CCTTTGTATGTGTGTACATATATATATATAACAAAACATCAGCCTTGGGTGGTGTGTTCCTATATAAACTCCA
AAGGGAAACACACCGACTGCCTCAGCAATCATGCAAAGACCTTGCCTGGCCCGGTGGCAAGCGCTGAAAAACCGA
CCGCCTGTAGGCTCCTGGAACTATACAGATAGGTAAAGAGTTCCAAGTTCGTCCAGCCCATGTGCAAAGTCAACA
GTATTTGCCTTAAGATTTCATATATATATATTTTTTTGCATTGACTGCTGAGAGCTCCTGTTTACTAAGCAAGCT
TTTGTGTTTATTATCCTCATTTTTACTGAACATTGTTAGTTTTGGGGTAATGGAAACCCACTTTTTCATTGTAAT
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FIGURE 776C

GACTTTGGGGGCTTTTGTTAGTAAGGGTGGGTGGGGTGATGGGTTGCAGACGGAGGTCAGGTCTTCCTCTTTCCT
GAGACTGGATCTGTTCAAACAGCAAACGCCCACAGATGGCCCAGAGGTGGTGGTAGTCAGGGTGTGTGGGTGTTT
TTAGGGTTCTTTAGTGTTGTTTCTTTCACCCAGGGGTGGTGGTCCCAGCCAGTTTGGTGCTGACGGTGAGAGGAA
ATTAGAATCTGTTTGCAAATTGTCCAACCCACCCCCTCAACATGAGGGGCTTCCATTTTCTGTGTTTTGTAAGGG
AACTGTTTCCTTCATGCCGCCATGTTCCTGATATTAGTTCTGATTTCTTTTTAACAAATGTTATCATGATTAAGA
AAATTTCCAGCACTTTAATGGCCAATTAACTGAGAATGTAAGAAAATTGATGCTGTACAAGGCAAATAAAGCTGT
TTATTAACCTCCGAAAAAAAATCTATGTCGGGTGCGGAGAAAGAGGTAATGAAATGGCA

FIGURE 777

MPKVKMPKFSMPGFKGEGPDGDVKLPKADIDVSGPKVDIEGPDVNIEGPEGKLKGPKFKMPEMNIKAPKISMPDI
DLNLKGPKVKGDVDVSLPKVEGDLKGPEVDIKGPKVDIDAPDVDVHGPDWHLKMPKIKMPKISMPGFKGEGPDVD
VNLPKADIDVSGPKVDVECPDVNIEGPEGKWKSPKFKMPEMHFKTPKISMPDIDLNLTGPKIKGDVDVTGPKVEG
DLKGPEVDLKGPKVDIDVPDVNVQGPDWHLKMPKMKMPKFSMPGFKAEGPEVDVNLPKADVDVSGPKVDVEGPDV
NIEGPEGKLKGPKFKMPEMNIKAPKIPMPDFDLHLKGPKVKGDVDISLPKVEGDLKGPEVDIRGPKVDIDVPDVG
VQGPDWHLKMPKVKMPKFSMPGFKGEGPDVDVNLPKADLDVSGPKVDIDVPDVNIEGPEGKLKGPKFKMPEMNIK
APKISMPDIDLNLKGPKVKGDMDVSLPKVEGDMKVPDVDIKGPKVDINAPDVDVQGPDWHLKMPKIKMPKISMPG
FKGEGPEVDVNLPKADLDVSGPKVDVDVPDVNIEGPDAKLKGPKFKMPEMNIKAPKISMPDFDLHLKGPKVKGDV
DVSLPKMEGDLKGPEVDIKGPKVDINAPDVDVQGPDWHLKMPKVKMPKFSMPGFKGEGPDVDVNLPKADLDVSGP
KVDIDVPDVDIRRSRRETERSQIQDAEMSIQAPKISMPDIDLNLKGPKVKGDVDVTLPKVEGDLKGPEADIKGPK
VDINTPDVDVHGPDWHLKMPKVKMPKFSMPGFKGEGPDVDVNLPKADIDVSGPKVDVDVPDVNIEGPDAKLKGPK
FKMPEMSIKAPKISMPDIDLNLKGPKVKGDVDVTLPKVEGDLKGPEADIKGPKVDINTPDVDVHGPDWHLKMPKV
KMPKFSMPGFKGEGPDVDVSLPKADIDVSGPKVDVDIPDVNIEGPDAKLKGPKFKMPEINIKAPKISIPDVDLDL
KGPKVKGDFDVSVPKVEGTLKGPEVDLKGPRLDFEGPDAKLSGPSLKMPSLEISAPKVTAPDVDLHLKAPKIGFS
GPKLEGGEVDLKGPKVEAPSLDVHMDSPDINIEGPDVKIPKFKKPKFGFGAKSPKADIKSPSLDVTVPEAELNLE
TPEISVGGKGKKSKFKMPKIHMSGPKIKAKKTGIDLNVPGGEIDASLKAPDVDVNIAGPDAALKVDVKSPKTKKT
MFGKMYFPDVEFDIKSPKFKAEAPLPSPKLEGELQAPDLELSLPAIHVEGLDIKAKAPKVKMPDVDISVPKIEGD
LKGPKVQANLGAPDINIEGLDAKVKTPSFGISAPQVSIPDVNVNLKGPKIKGDVPSVGLEGPDVDLQGPEAKIKF
PKFSMPKIGIPGVKMEGGGAEVHAQLPSLEGDLRGPDVKLEGPDVSLKGPGVDLPSVNLSMPKVSGPDLDLNLKG
PSLKGDLDASVPSMKVHAPGLNLSGVGGKMQVGGDGVKVPGIDATTKLNVGAPDVTLRGPSLQGDLAVSGDIKCP
KVSVGAPDLSLEASEGSIKLPKMKLPQFGISTPGSDLHVNAKGPQVSGELKGPGVDVNLKGPRISAPNVDFNLEG
PKVKGSLGATGEIKGPTVGGGLPGIGVQGLEGNLQMPGIKSSGCDVNLPGVNVKLPTGQISGPEIKGGLKGSEVG
FHGAAPDISVKGPAFNMASPESDFGINLKGPKIKGGADVSGGVSAPDISLGEGHLSVKGSGGEWKGPQVSSALNL
DTSKFAGGLHFSGPKVEGGVKGGQIGLQAPGLSVSGPQGHLESGSGKVTFPKMKIPKFTFSGRELVGREMGVDVH
FPKAEASIQAGAGDGEWEESEVKLKKSKIKMPKFNFSKPKGKGGVTGSPEASISGSKGDLKSSKASLGSLEGEAE
AEASSPKGKFSLFKSKKPRHRSNSFSDEREFSGPSTPTGTLEFEGGEVSLEGGKVKGKHGKLKFGTFGGLGSKSK
GHYEVTGSDDETGKLQGSGVSLASKKSRLSSSSSNDSGNKVGIQLPEVELSVSTKKE

FIGURE 778

GTGCGGTTGGGAACGCGGAGCGGACGGATTCGATTCAACGGGGTTCCGGACCGCGCTGCGCT**ATG**GAGCAGGTCA
ATGAGCTGAAGGAGAAAGGCAACAAGGCCCTGAGCGTGGGTAACATCGATGATGCCTTACAGTGCTACTCCGAAG
CTATTAAGCTGGATCCCCACAACCACGTGCTGTACAGCAACCGTTCTGCTGCCTATGCCAAGAAAGGAGACTACC
AGAAGGCTTATGAGGATGGCTGCAAGACTGTCGACCTAAAGCCTGACTGGGGCAAGGGCTATTCACGAAAAGCAG
CAGCTCTAGAGTTCTTAAACCGCTTTGAAGAAGCCAAGCGAACCTATGAGGAGGGCTTAAAACACGAGGCAAATA
ACCCTCAACTGAAAGAGGGTTTACAGAATATGGAGGCCAGGTTGGCAGAGAGAAAATTCATGAACCCTTTCAACA
TGCCTAATCTGTATCAGAAGTTGGAGAGTGATCCCAGGACAAGGACACTACTCAGTGATCCTACCTACCGGGAGC
TGATAGAGCAGCTACGAAACAAGCCTTCTGACCTGGGCACGAAACTACAAGATCCCCGGATCATGACCACTCTCA
GCGTCCTCCTTGGGGTCGATCTGGGCAGTATGGATGAGGAGGAAGAGATTGCAACACCTCCACCACCACCCCCTC
CCAAAAAGGAGACCAAGCCAGAGCCAATGGAAGAAGATCTTCCAGAGAATAAGAAGCAGGCACTGAAAGAAAAG
AGCTGGGGAACGATGCCTACAAGAAGAAAGACTTTGACACAGCCTTGAAGCATTACGACAAAGCCAAGGAGCTGG
ACCCCACTAACATGACTTACATTACCAATCAAGCAGCGGTATACTTTGAAAAGGGCGACTACAATAAGTGCCGGG
AGCTTTGTGAGAAGGCCATTGAAGTGGGGAGAGAAAACCGAGAAGACTATCGACAGATTGCCAAAGCATATGCTC
GAATTGGCAACTCCTACTTCAAAGAAGAAAAGTACAAGGATGCCATCCATTTCTATAACAAGTCTCTGGCAGAGC
ACCGAACCCCAGATGTGCTCAAGAAATGCCAGCAGGCAGAGAAAATCCTGAAGGAGCAAGAGCGGCTGGCCTACA
TAAAACCCCGACCTGGCTTTGGAGGAGAAGAACAAAGGCAACGAGTGTTTTCAGAAAGGGGACTATCCCCAGGCCA
TGAAGCATTATACAGAAGCCATCAAAAGGAACCCGAAAGATGCCAAATTATACAGCAATCGAGCTGCCTGCTACA
CCAAACTCCTGGAGTTCCAGCTGGCACTCAAGGACTGTGAGGAATGTATCCAGCTGGAGCCGACCTTCATCAAGG
GTTATACACGGAAAGCCGCTGCGCTGGAAGCGATGAAGGACTACACCAAAGCCATGGATGTGTACCAGAAGGCGC
TAGACCTGGACTCCAGCTGTAAGGAGGCGGCAGACGGCTACCAGCGCTGTATGATGGCGCAGTACAACCGGCACG
ACAGCCCCGAAGATGTGAAGCGACGAGCCATGGCCGACCCTGAGGTGCAGCAGATCATGAGTGACCCAGCCATGC
GCCTTATCCTGGAACAGATGCAGAAGGACCCCCAGGCACTCAGCGAACACTTAAAGAATCCTGTAATAGCACAGA
AGATCCAGAAGCTGATGGATGTGGGTCTGATTGCAATTCGG**TGA**TGACTTGTTCATCCCCCCTTCCCTTCGCCCT
CATGTGGAAAGAGGAGCTGGGACCGCGGCGAGCAGCACGGAGCGGAAGGGAGAGCAGGGGAGAGAAGGCCTCATC
TCTCTATATTTATACATAACCCCGGGGAAGACACAGAGACTCGTACCTGCGCTGTTTGTGCCGCCGCTGCCTCTG
GGCCCTCCCAGCACACGCATGGTCTCTTCACCGCTGCCCTCGAGTTCCATGTCTCTTTCCCCTGCCCCTAGTTGC
TGTCTCGGCTGCTCTCCCATAGTTGGTTTTTTTTTATTTGGGGCAGTGGGCATGTTATGGGGAGGGGAGGGGGT
TCTTCCAGCCTCAGGTCCCAGCTGTCTCACGTTGTTTATTCTGCGTCCCCTTCTCCAATAAAACAAGCCAGTTGG
GCGTGGTTATAAC

FIGURE 779

MEQVNELKEKGNKALSVGNIDDALQCYSEAIKLDPHNHVLYSNRSAAYAKKGDYQKAYEDGCKTVDLKPDWGKGY
SRKAAALEFLNRFEEAKRTYEEGLKHEANNPQLKEGLQNMEARLAERKFMNPFNMPNLYQKLESDPRTRTLLSDP
TYRELIEQLRNKPSDLGTKLQDPRIMTTLSVLLGVDLGSMDEEEEIATPPPPPPPKKETKPEPMEEDLPENKKQA
LKEKELGNDAYKKKDFDTALKHYDKAKELDPTNMTYITNQAAVYFEKGDYNKCRELCEKAIEVGRENREDYRQIA
KAYARIGNSYFKEEKYKDAIHFYNKSLAEHRTPDVLKKCQQAEKILKEQERLAYINPDLALEEKNKGNECFQKGD
YPQAMKHYTEAIKRNPKDAKLYSNRAACYTKLLEFQLALKDCEECIQLEPTFIKGYTRKAAALEAMKDYTKAMDV
YQKALDLDSSCKEAADGYQRCMMAQYNRHDSPEDVKRRAMADPEVQQIMSDPAMRLILEQMQKDPQALSEHLKNP
VIAQKIQKLMDVGLIAIR

FIGURE 780

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GCTAGATGAGACTGAAGAGTCTTCTTTACTTTAAGTGATTGATTTCATTTAGGACTCCTTGTGGGTTTTTTGTAA
AAAGCCATTAACCATTTCCCCTGCCCTGATCTCCATATCAGCCTTTATATATATTCATTGTCTCTCAACAGCCCC
AATTTTTTTATTTAACAGATGGGGAACAGAGGCTCTGAGCGGTTAACAAAGCTTTCTTTCTGTGGAAACCTAGTA
AATGGCAAAGCTGGAATATGAAACTGCAAAGCCTATGTGCTTAACTAGTAAACCCAACCACCTGGGACCACCATA
TCTTACTGTGCAGTTTGTTGCTGTGTGAGGGGATCAGAACATCTAAGAACTGCCATTCACGTTGAGGACAACATA
GGGATTTATATATTAATACATGCTGGTGTAATACAGGCCGGTGTTCTGTTAAAATTAGTATATTAGGACAGTTTG
CCATACCATAGGGGAAAAGCCACTTTATTCTAATTCACCCAAAGGTACTGTAAGTGCTGATGGCTCTGGGTCTGT
CTTTCTGTCAAGTTGCCAAGTCACATAAGTAATGAATCCGCAGCTGGAGGAGCTGCTGCTGGAGGACAGGCATGT
TTTCAGACAGGAGCATGGCCTTTAGCTCATGACCATAAGAGGGCGCTACAGCAAAGAGTACTAAATACCAATCAA
AGTGAGCTCAGAGTACAAGAGGGTAACTTGCTTTTCTCCAAAGTAAAAGAGAAGACATAGTCCTCAAACACTTGC
CCTGTGCCCTGTCCCTGAACTCTCCATGGAGGAATTTTTTCTGTTGTTTAGTGTTAGCAGAATTTAGGAAGGGCT
TGTAATAAGGAAGGTTGAGGGTTGGGTGGGGTCACACTGTGTTGTGTGAGGATCATTTTCATGTTAATGAAATGT
TTAGTTCTTTAAGGGGAATGTGGTAGAGCCTTTATCTCCCCCTGCCCTTTTTTTTAAACTGCACAGGTCCTGGCA
CAATGTTTATTGTGTCATAAATAACCAAGAAATGGGTTTCTACAAAAGATGCAAAGACTGTGCTTCTGGAATTCC
CTACCACAGCGAGGTCCCTGTGAGTTTGAAAGAAGCTGTCTGCGAAGTGGCCCTTGATTACAAAAAGAAGAAACA
CGTATTCAAGCTAAGACTAAATGATGGCAATGAGTACCTCTTCCAAGCCAAAGACGATGAGGAAATGAACACATG
GATCAAGGAAAAATTACTGCAGTTGACGGAAAAGAGGAAAGAAATGATCGGTCCTTACAGCCGCTCGTCAGACTC
CAGCAACCTGGGATGAGAGGTTCTCTGCCCTGGAAAGGCTGACTACATTGGAGTTACTGGAAGTGCGCAGACAGC
AAGAGGAAGAGGAGAGGAAGAGGCGGCCGCCTTCTCCCGAGCCGAGCACGAAGGTTTCAGAGGAAGCCGAGTCCC
AGCAGCAGTGGGATACTTCAAAAGGAGAACAAGTTTCCCCAAACGGTTTGCCAGCTGAACAGGGATCTCCACGG**A**
**TG**GCAGAAACGGTGGACACAAGCGAAATGGTCAACGGCGCTACAGAACAAAGGACGAGCTCTAAAGAGTCCAGCC
CCATCCCCTCCCCGACCTCTGATCGTAAAGCCAAGACTGCCCTCCCAGCCCAGAGTGCCGCCACCTTACCAGCCA
GAACCCAGGAGACACCTTCGGCCCAGATGGAAGGCTTCCTCAATCGGAAACACGAGTGGGAGGCCCACAATAAGA
AAGCCTCAAGCAGGTCCTGGCACAATGTTTATTGTGTCATAAATAACCAAGAAATGGGTTTCTACAAAGATGCAA
AGACTGCTGCTTCTGGAATTCCCTACCACAGCGAGGTCCCTGTGAGTTTGAAAGAAGCTGTCTGCGAAGTGGCCC
TTGATTACAAAAAGAAGAAACACGTATTCAAGCTAAGACTAAATGATGGCATGAGTACCTCTTCCAAGCCAAAGA
CAAAGAGAACCGGTTCAGCCTTTTTGGCCAAAAAGAAA**TGA**ACTCCTTTCCTTCACCTCCTGCCCTTCTCTTACC
CTTTCAGTGAAATTCCCGCATGCAAGCTCAGAACCCACACAGTACTCTCTGTGCCCAAAGTTCCCCAAAGTGGTT
GAANNNNNNNNNNNNNNNNNNNNNAGAGCATTTCGGGGGGGGTGGGGGAAACACACCTAAACACTTTATCTCCCA
GTTACCAAAGTTTGAGGTGCAGAGGGAAGGCCAGATTTTTTTTTAATGAAATTATATAGATTAGATCTCAGTAT
TTAAACTGTTCCTCAATTTTGTGAGGCTGTGTTGGAAATAACCCGCCTCTAGTGCTGTTGGTATGCAAGGCAGCG
GTGCTTAATCAATATTTCCTGTGCTCACCAGAGGCCAAATGTACCAATATCCTGACACCATTCTCTCTCCATTTA
CTTCTTGGTGGTTACCCTGACTCTTGACTCTTAGAAGTGCCCGAGATGGGGCTAACCTTTATTAAACAGATCGCA
TATTATGATCTTGCTGCAGCCACAGTGCAGCTCCACATTAACTCTACAGACCAAACCATTTGTATCTGGCATCAC
TTACTAACACGACATGCGGCTTTTCTGCATCAACTGCTATGACGGTTAAGAATGTCAGTATACAAGAAGGAAT
AGAAAACTGATACTGTTTTAAATAATCTGTAATTTCAATTTTTTTTTTTTGCTGAAATACATTATATTGTACGT
TTGAGATAATTCTAGTACAAAGTATAATAAAACTAGATGTATAATAAACCCTTTAAATCATTGGTAAGTGTACAA
GTGGTGGAACTGAAGCATTTACTGGACAAAGTAATGTTACTCTAATGGTTACTTGCTCGTGCGTTGCCCACACTG
TGTTATAATTTGCTTCATTTCCTTGCTATTTGATACATAGTGTGCATTTCTCTGTCACTGTAACTATTGTAATGA
CAAATTTTCATCTTACTGCACAATCAAAATGACATTGATAGGAATGAACTCCAGAGGCTGGGCCTGAACAGGGAG
GTGGTCGCTCAGGCCTGGTGCTCAGTCGTACGACCTGTACCTCTCAACTTTTGCCCTATCTGTTAAATATATGCT
ATGTCATTAAATGCTTTTAAATCTAGCACGGTGACTAGTTGTTGTTCTTCCTCTGCTGCGTGTGCATGCCCAGTA
GGGAAACTGCAAAGGGAGAAATGACAAACAAGAAACATTTTACAACCAGTCTGGGCTCACTTTTGCATTTTTTAT
GCATGTCTGGTGCACAAGCTTTGAAAACTACAGCAAACAGTAATAAATGTGACTGTTTTGTAGT
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FIGURE 781

MAETVDTSEMVNGATEQRTSSKESSPIPSPTSDRKAKTALPAQSAATLPARTQETPSAQMEGFLNRKHEWEAHNK
KASSRSWHNVYCVINNQEMGFYKDAKTAASGIPYHSEVPVSLKEAVCEVALDYKKKKHVFKLRLNDGMSTSSKPK
TKRTGSAFLAKKK

FIGURE 782A

CGCGTGTCTACGCGGACGCACCGGCTAAGCTGCTTCTGCCGCCGCCGGCCGCCTGGGACCTTGCGGTGAGGCTGC
GCGGGGCCGAGGCCGCCTCCGAGCGCCAGGTTTATTCAGTCACCATGAAGCTGCTGCTGCTGCACCCGGCCTTCC
AGAGCTGCCTCCTGCTGACCCTGCTTGGCTTATGGAGAACCACCCCTGAGGCTCACGCTTCATCCCTGGGTGCAC
CAGCTATCAGCGCTGCCTCCTTCCTGCAGGATCTAATACATCGGTATGGCGAGGGTGACAGCCTCACTCTGCAGC
AGCTGAAGGCCCTGCTCAACCACCTGGATGTGGGAGTGGGCCGGGGTAATGTCACCCAGCACGTGCAAGGACACA
GGAACCTCTCCACGTGCTTTAGTTCTGGAGACCTCTTCACTGCCCACAATTTCAGCGAGCAGTCGCGGATTGGGA
GCAGCGAGCTCCAGGAGTTCTGCCCCACCATCCTCCAGCAGCTGGATTCCCGGGCCTGCACCTCGGAGAACCAGG
AAAACGAGGAGAATGAGCAGACGGAGGAGGGGCGGCCAAGCGCTGTTGAAGTGTGGGGATACGGTCTCCTCTGTG
TGACCGTCATCTCCCTCTGCTCCCTCCTGGGGGGCCAGCGTGGTGCCCTTCATGAAGAAGACCTTTTACAAGAGGC
TGCTGCTCTACTTCATAGCTCTGGCGATTGGAACCCTCTACTCCAACGCCCTCTTCCAGCTCATCCCGGAGGCAT
TTGGTTTCAACCCTCTGGAAGATTATTATGTCTCCAAGTCTGCAGTGGTGTTTGGGGGCTTTTATCTTTTCTTTT
TCACAGAGAAGATCTTGAAGATTCTTCTTAAGCAGAAAAATGAGCATCATCATGGACACAGCCATTATGCCTCTG
AGTCGCTTCCCTCCAAGAAGGACCAGGAGGAGGGGGTGATGGAGAAGCTGCAGAACGGGGACCTGGACCACATGA
TTCCTCAGCACTGCAGCAGTGAGCTGGACGGCAAGGCGCCCATGGTGGACGAGAAGGTCATTGTGGGCTCGCTCT
CTGTGCAGGACCTGCAGGCTTCCCAGAGTGCTTGCTACTGGCTGAAAGGTGTCCGCTACTCTGATATCGGCACTC
TGGCCTGGATGATCACTCTGAGCGACGGCCTCCACAATTTCATCGATGGCCTGGCCATCGGTGCTTCCTTCACTG
TGTCAGTTTTCCAAGGCATCAGCACCTCGGTGGCCATCCTCTGTGAGGAGTTCCCACATGAGCTAGGAGACTTTG
TCATCCTGCTCAACGCTGGGATGAGCATCCAACAAGCTCTCTTCTTCAACTTCCTTTCTGCCTGCTGCTGCTACC
TGGGTCTGGCCTTTGGCATCCTGGCCGGCAGCCACTTCTCTGCCAACTGGATTTTTGCGCTAGCTGGAGGAATGT
TCTTGTATATTTCTCTGGCTGATATGTTCCCTGAGATGAATGAGGTCTGTCAAGAGGATGAAAGGAAGGGCAGCA
TCTTGATTCCATTTATCATCCAGAACCTGGGCCTCCTGACTGGATTCACCATCATGGTGGTCCTCACCATGTATT
CAGGACAGATCCAGATTGGG**TAG**GGCTCTGCCAAGAGCCTGTGGGACTGGAAGTCGGGCCCTGGGCTGCCCGATC
GCCAGCCCGAGGACTTACCATCCACAATGCACCACGGAAGAGGCCGTTCTATGAAAAACTGACACAGACTGTATT
CCTGCATTCAAATGTCAGCCGTTTGTAAAATGCTGTATCCTAGGAATAAGCTGCCCTGGTAACCAGTCTCTAGCT
AGTGCCTCTTGCCCTCTCCTCACCTCCTTTTCTCTCAGTGACTCTGGAACCTGAATGCAGCTTACAAGACAAGCC
TGACTTTTTTCTCTGATTACCTTGGCCTCCTCTTGGAACCAGTGCTGAAAGGTTTTGAATCCTTTACCCAACAAT
GCAAAAATAGAGCCAATGGTTATAACTTGGCTAGAAATATCAAGAGTTGAATCCATAGTGTGGGGCCCATGACTC
TAGCTGGGCACCTTGGACCTCCAGCTGGCCAATAGAAGAGACAGGAGACAGGAAGCCTTCCCATTTTTTCAAAGT
CTGTTTAATTGCCTATTACTTCTCTCAAAGAGAACCTGAAGTCAGAACACATGAGCAGGGTGAGAGGTGAGGCAA
GGTTCATCCTGAATGGGAGAGGAAGTCGAACCACTGCTGTGTGTCTTGTCAGGATGCTCACTTGTTCCTACTGAG
ATGCTGGATATTGATTTTGTAACAGCACCTGGTGTTTCACGGCTGTCCGAGTGAGCTAACGTGGCGGTGTGGCTG
CCTGGACCTCCTCTTTCAGGTTAACGCTGACAGAATGGAGGCTCAGGCTGTCTGCAAGAAACAGTTGGTTTGGC
TGTGATTTTGACCTCCTCTTCCCCACTGCCATCTTCTAAGAGACTTTGTAGCTGCCTCCTAGAAGCACATTCTGA
GCACATTTGAGACCTCTGTGTTAGAGGGGAGACTGCACAAACTATCCTCCCCCAGGTTGAGACGTCTGCAGAGTG
GCAAGCTGACTTGTAGAAATGGGGTGCCATTTATGCTCTACTTAGACAAGGGTAATCAGAAATGGAATCAGTGCA
GGCAAAATTTAGGATTTGCCGCTTCCATAAATCAAAGCATGACTAATAGGGGGTCTCTGAAATGTAAGGGCACAA
ACTTCACTTAGGGCATCGCAGATGTTTGCAGAATGGTTGGCCTAATGATTATGCTACAGATGGGTTTTAAATGAC
CCGTCTAGGTTACTGCTTCCTTGCAAAAAAAGTCGAATCCTGCATTGAATTGAATATGAATTTCTCTAACTCTCT
CCAGAAAATGGATGGAGATAACTTGTCTTTAAAACTGTAGGCCAGCCTTAGCCACTGTGGAGCCCTTGCCTCCGA
GCTCTGGCTTCAAGGGGAGCTCTTCTCCAGGTTCACTAGGTGAATTGATTTATTATTATCATATTGATAATGTGA
GATTCTTTAGCCACTTTGGGGAGCCTGTCTCTCCAGAAGCCTTTCTTAGTGGTGCCCACAGTTGGAGCCCAGGGG
CCATGTTTGCAAACTGATTCATGTGCATGGCTGACAGGAGTACTGGTTCACTACCAATGCCTGAGCTTTTCTCTT
ACATAGAAAAACTGTCCACTCTCAGTAATCACAAGCAGCATCCGTTTTGTTTTCTCTTCTTGGGAGACATCTGTC
AAACCAGGAATATTCTTGAAAAGAACGTGAGCAGGAAAAACTGCTGGTGATACTTTTTTAAGTTTTGTTTTTAT
CTTGCCTGTTGGCTTCAATACATTTGAGAATACGCTGAAGAGGGAAAATTTCAGTGATGGAGATTCTAGATTAAA
TATCAGGACTGATTTCCTGGTGGGATTATGGTCCAGTTTTACCAAAGAACCAATTCCTTGAATGTTGGAATCTAA
CTTTTTATATTGTCATTATTATTGTTGTTTTTAAACGGTTCTTTGTCTTTTCTGTTTTATTTTTCTCAAGCTGCT
TTCAGGAGCTAGCAGAAAATAACTCAAAGTTGAAGACTCTGGAAGATTTTGCTTTAACCTAACTCGCATTGATGT

FIGURE 782B

ATTAAATTTATAATTTTAGCATTCCCAATAGATCCTATCATTCCTTAAACATAATACCCTTTGTCTTGGAGTAGA
ATACTAAGTTAGAGTTAGTGGATTTCTAGTTTAGGAGAGGAGCTCAAAACTATAATCTTTAACAAATTGAAAAAT
GAAATAGGGTGTTTTCCCTTTTTGTGCACACCTATATTACCTTAAGAAATTTCCTTCCATAGACAGCTGCCTCAA
AGGGAAATCCTCTTTAAACCGTAGTTGGCGCAGAGGTCAGTCCTAGTCGGAGCTTAGGAGGGGCGGAGACGCTCA
CATCGTCTGACTTGAGTCGCCACTGATTGTGGCAACAGCTTTGCCTCATGAGTCAAAAATTGGCAATTTCTTTTG
ATTTTTAGTTGTTGAATTTGCTGTTTCAAGCATTTGTACATATTAGAAGTCTAAGGAGTAGCAAGTCAGTGGGAG
GACTTTTTCACCCCTGGCATTAGCAGCTTCGACCTCATTTTCCAGATGCACCAGCTCCTATTAATAAGTTAGCAA
GGAAAGTGTATGTCACGTGCAGGAACAGTGAGGCAGGGACAGGGGTTCTGCTCCTTCTCACTTCACCACCGGCAC
ACAGCTTGCCCCTGTCTTTGCCCCCAAAGGTATTTTGTGTCTAGTGTCAAATTGGAGCTATTCTTCACTGGTCCT
TAACCTTGGGTTTTAAAAAGAAGGCTTCTCTGTTTGGGTAGCGTAAGAGCTGAGTATAGTAAGTCCTCTTCCAAA
GAGATGGCAATATGCTGGGCATCTACTTTAAAACAAAGTTGTCTGATTTTTGCAAGAGAGGTTAGGATTTTATTG
TTCTTATTTCCCTTTACAGTTCTGCAGTTCCATCACAGTATTTTTTAAATAACTCAGGTGTATGAGCAGAAATT
AGAAAAGAAAATTAACTTATGTGGACTGTAAATGTTTTATTTGTAAGATTCTATAAATAAAGCTATATTCTGT

FIGURE 783

RVYADAPAKLLLPPPAAWDLAVRLRGAEAASERQVYSVTMKLLLLHPAFQSCLLLTLLGLWRTTPEAHASSLGAP
AISAASFLQDLIHRYGEGDSLTLQQLKALLNHLDVGVGRGNVTQHVQGHRNLSTCFSSGDLFTAHNFSEQSRIGS
SELQEFCPTILQQLDSRACTSENQENEENEQTEEGRPSAVEVWGYGLLCVTVISLCSLLGASVVPFMKKTFYKRL
LLYFIALAIGTLYSNALFQLIPEAFGFNPLEDYYVSKSAVVFGGFYLFFFTEKILKILLKQKNEHHHGHSHYASE
SLPSKKDQEEGVMEKLQNGDLDHMIPQHCSSELDGKAPMVDEKVIVGSLSVQDLQASQSACYWLKGVRYSDIGTL
AWMITLSDGLHNFIDGLAIGASFTVSVFQGISTSVAILCEEFPHELGDFVILLNAGMSIQQALFFNFLSACCCYL
GLAFGILAGSHFSANWIFALAGGMFLYISLADMFPEMNEVCQEDERKGSILIPFIIQNLGLLTGFTIMVVLTMYS
GQIQIG

FIGURE 784

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GAATTCGGCACGAGCGAGTCGCGACGTCGTCGGCAAGCGGCCGCCTTCCACGTAACGCGCGCCGGCGGGGGAGGG
CGTTGGCGCGGAGCCGACGGGAACGTCCGCGCTGCGGAGCAGGGCAGGGAAGCCGGGAGGCGGGCCCGGCCCGAG
CTTGTCCTTGTCGCGCAGGTACTCCGAGCACTATGTCGTCCCCGGCGTCGACCCCGAGCCGCCGCGGCAGCCGGC
GTGGAAGGGCCACCCCCGCCCAGACGCCTCGGAGTGAGGATGCCAGGTCATCTCCCTCTCAGAGACGTAGAGGCG
AGGATTCCACCTCCACGGGGGAGTTGCAGCCGATGCCAACCTCGCCTGGAGTGGACCTGCAGAGCACTGCTGCGC
AGGACGTGCTGTTTTCCAGCCCTCCCCAAATGCATTCTTCAGCTATCCCTCTTGACTTTGATGTTAGTTCACCAC
TGACATACGGCACTCCCAGCTCTCGGGTAGAGGGAACCCCAAGAAGTGGTGTTAGGGGCACACCTGTGAGACAGA
GGCCTGACCTGGGCTCTGCACAGAAGGGCCTGCAAGTGGATCTGCAGTCTGACGGGGCAGCAGCAGAAGATATAG
TGGCAAGTGAGCAGTCTCTAGGCCAAAAACTTGTGATCTGGGGAACAGATGTAAATGTGGCAGCATGCAAAGAAA
ACTTTCAGAGATTTCTTCAGCGTTTTATTGACCCTCTGGCTAAAGAAGAAGAAATGTTGGCATAGATATTACTG
AACCTCTATACATGCAACGACTTGGGGAGATTAATGTTATTGGTGAGCAATTTTTAAATGTGAACTGTGAACACA
TCAAATCATTTGACAAAAATTTGTACAGACAACTCATCTCTTACCCACAGGAAGTTATTCCAACTTTTGACATGG
CTGTCAATGAAATCTTCTTTGACCGTTACCCTGACTCAATCTTAGAACATCAGATTCAAGTAAGACCATTCAACG
CATTGAAGACTAAGAATATGAGAAACCTGAATCCAGAAGACATTGACCAGCTCATCACCATCAGCGGCATGGTGA
TCAGGACATCCCAGCTGATTCCCGAGATGCAGGAGGCCTTCTTCCAGTGCCAAGTGTGTGCCCACACGACCCGGG
TGGAGATGGACCGCGGCCGCATTGCAGAGCCCAGTGTGTGCGGGCGCTGCCACACCACCCACAGCATGGCACTCA
TCCACAACCGCTCCCTCTTCTCTGACAAGCAGATGATCAAGCTTCAGGAGTCTCCGGAAGACATGCCTGCAGGGC
AGACACCACACACAGTTATCCTGTTTGCTCACAATGATCTCGTTGACAAGGTCCAGCCTGGGGACAGAGTGAATG
TTACAGGCATCTATCGAGCTGTGCCTATTCGAGTCAATCCAAGAGTGAGTAATGTGAAGTCTGTCTACAAAACCC
ACATTGATGTCATTCATTATCGGAAAACGGATGCAAAACGTCTGCATGGCCTTGATGAAGAAGCAGAACAGAAAC
TTTTTTCAGAGAAACGTGTGGAATTGCTTAAGGAACTTTCCAGGAAACCAGACATTTATGAGAGGCTTGCTTCAG
CCTTGGCTCCAAGCATTTATGAACATGAAGATATAAAGAAGGGAATTTTGCTTCAGCTCTTTGGCGGGACAAGGA
AGGATTTTAGTCACACTGGAAGGGGCAAATTTCGGGCTGAGATCAACATCTTGCTGTGTGGCGACCCTGGTACCA
GCAAGTCCCAGCTGCTGCAGTACGTGTACAACCTCGTCCCCAGGGGCCAGTACACGTCTGGGAAGGGCTCCAGTG
CAGTTGGCCTCACTGCGTACGTAATGAAAGACCCTGAGACAAGGCAGCTGGTCCTGCAGACAGGTGCTCTTGTCC
TGAGTGACAACGGCATCTGCTGTATCGATGAGTTCGACAAGATGAATGAAAGTACAAGATCGGTATTGCATGAAG
TCATGGAACAGCAGACTCTGTCCATTGCAAAGGCTGGGATCATCTGTCAGCTCAATGCGCGCACCTCTGTCCTGG
CAGCAGCAAATCCCATTGAGTCTCAGTGGAATCCTAAAAAAACAACCATTGAAAACATCCAGCTGCCTCATACTT
TATTATCAAGGTTTGATTTGATCTTCCTCATGCTGGACCCTCAGGACGAAGCCTATGACAGGCGTCTGGCTCACC
ACCTGGTCGCACTGTACTACCAGAGCGAGGAGCAGGCAGAGGAGGAGCTCCTGGACATGGCGGTGCTAAAGGACT
ACATTGCCTACGCGCACAGCACCATCATGCCGCGGCTAAGTGAGGAAGCCAGCCAGGCTCTCATCGAGGCTTATG
TAGACATGAGGAAGATTGGCAGTAGCCGGGGAATGGTTTCTGCATACCCTCGACAGCTAGAGTCATTAATCCGCT
TAGCAGAAGCCCATGCTAAAGTAAGATTGTCTAACAAAGTTGAAGCCATTGATGTGGAAGAGGCCAAACGCCTCC
ATCGGGAAGCTCTGAAGCAGTCTGCAACTGATCCCCGGACTGGCATCGTGGACATATCTATTCTTACTACGGGGA
TGAGTGCCACCTCTCGTAAACGGAAAGAAGAATTAGCTGAAGCATTGAAAAAGCTTATTTTATCTAAGGGCAAAA
CACCAGCTCTAAAATACCAGCAACTTTTTGAAGATATTCGGGGACAATCTGACATAGCAATTACTAAAGATATGT
TTGAAGAAGCACTGCGTGCCCTGGCAGATGATGATTTCCTGACAGTGACTGGGAAGACCGTGCGCTTGCTC**TGA**A
GCCTTGTGAGCAAGGAAGGCTCCCTGCATGTCATGCAATTCTGCACGCCACATGGGTGTGGTCATGCAATCATCA
GTTGGCCGCCATCAGTGTAAATAGAGCTTAAAGTCATGGTTTGGCTGCATAAAAAATTTTCTAACTTGGGTTCAA
TATTTGTAGTGAAGTATCTGTTTTCATTTTTTTCACGTTATAAATAAAAATACTATGCTGGCCGGGCGCGGTGGC
TCACACCTGTAATCCCAGCACTTTGGGAGGCCAATGTGGGTGGATCATGAGGTCAGGAGTTCAAGACCAGCCTAG
CCAAGATGGTGAAACCCCGTCTCTAGTAAAGATAACAAAAATTAGCTGGGCTTGATGGCATGCGCCTGTAATCC
CAGCTACTCGGGAGGTTGAGGCAGGAGATCGCTTAAACCCAGGCGGCAGAGGTTGCAGTGAGCCAAGATCGCGCC
ACTGCACTCCAGCCTCAGCAATAGAGTGAGACTGTCTCAAAAAAAAAA
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FIGURE 785

IRHERVATSSASGRLPRNARRRGRALARSRRERPRCGAGQGSREAGPARACPCRAGTPSTMSSPASTPSRRGSRR
GRATPAQTPRSEDARSSPSQRRRGEDSTSTGELQPMPTSPGVDLQSTAAQDVLFSSPPQMHSSAIPLDFDVSSPL
TYGTPSSRVEGTPRSGVRGTPVRQRPDLGSAQKGLQVDLQSDGAAAEDIVASEQSLGQKLVIWGTDVNVAACKEN
FQRFLQRFIDPLAKEEENVGIDITEPLYMQRLGEINVIGEQFLNVNCEHIKSFDKNLYRQLISYPQEVIPTFDMA
VNEIFFDRYPDSILEHQIQVRPFNALKTKNMRNLNPEDIDQLITISGMVIRTSQLIPEMQEAFFQCQVCAHTTRV
EMDRGRIAEPSVCGRCHTTHSMALIHNRSLFSDKQMIKLQESPEDMPAGQTPHTVILFAHNDLVDKVQPGDRVNV
TGIYRAVPIRVNPRVSNVKSVYKTHIDVIHYRKTDAKRLHGLDEEAEQKLFSEKRVELLKELSRKPDIYERLASA
LAPSIYEHEDIKKGILLQLFGGTRKDFSHTGRGKFRAEINILLCGDPGTSKSQLLQYVYNLVPRGQYTSGKGSSA
VGLTAYVMKDPETRQLVLQTGALVLSDNGICCIDEFDKMNESTRSVLHEVMEQQTLSIAKAGIICQLNARTSVLA
AANPIESQWNPKKTTIENIQLPHTLLSRFDLIFLMLDPQDEAYDRRLAHHLVALYYQSEEQAEEELLDMAVLKDY
IAYAHSTIMPRLSEEASQALIEAYVDMRKIGSSRGMVSAYPRQLESLIRLAEAHAKVRLSNKVEAIDVEEAKRLH
REALKQSATDPRTGIVDISILTTGMSATSRKRKEELAEALKKLILSKGKTPALKYQQLFEDIRGQSDIAITKDMF
EEALRALADDDFLTVTGKTVRLL

FIGURE 786

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GAATTCGGCACGAGCGAGTCGCGACGTCGTCGGCAAGCGGCCGCCTTCCACGTAACGCGCGCCGGCGGGGGAGGG
CGTTGGCGCGGAGCCGACGGGAACGTCCGCGCTGCGGAGCAGGGCAGGGAAGCCGGGAGGCGGGCCCGGCCCGAG
CTTGTCCTTGTCGCGCAGGTACTCCGAGCACTATGTCGTCCCCGGCGTCGACCCCGAGCCGCCGCGGCAGCCGGC
GTGGAAGGGCCACCCCCGCCCAGACGCCTCGGAGTGAGGATGCCAGGTCATCTCCCTCTCAGAGACGTAGAGGCG
AGGATTCCACCTCCACGGGGGAGTTGCAGCCGATGCCAACCTCGCCTGGAGTGGACCTGCAGAGCACTGCTGCGC
AGGACGTGCTGTTTTCCAGCCCTCCCCAAATGCATTCTTCAGCTATCCCTCTTGACTTTGATGTTAGTTCACCAC
TGACATACGGCACTCCCAGCTCTCGGGTAGAGGGAACCCCAAGAAGTGGTGTTAGGGGCACACCTGTGAGACAGA
GGCCTGACCTGGGCTCTGCACAGAAGGGCCTGCAAGTGGATCTGCAGTCTGACGGGGCAGCAGCAGAAGATATAG
TGGCAAGTGAGCAGTCTCTAGGCCAAAAACTTGTGATCTGGGGAACAGATGTAAATGTGGCAGCATGCAAAGAAA
ACTTTCAGAGATTTCTTCAGCGTTTTATTGACCCTCTGGCTAAAGAAGAAGAAATGTTGGCATAGATATTACTG
AACCTCTATACATGCAACGACTTGGGGAGATTAATGTTATTGGTGAGCAATTTTTAAATGTGAACTGTGAACACA
TCAAATCATTTGACAAAAATTTGTACAGACAACTCATCTCTTACCCACAGGAAGTTATTCCAACTTTTGACATGG
CTGTCAATGAAATCTTCTTTGACCGTTACCCTGACTCAATCTTAGAACATCAGATTCAAGTAAGACCATTCAACG
CATTGAAGACTAAGAATATGAGAAACCTGAATCCAGAAGACATTGACCAGCTCATCACCATCAGCGGCATGGTGA
TCAGGACATCCCAGCTGATTCCCGAGATGCAGGAGGCCTTCTTCCAGTGCCAAGTGTGTGCCCACACGACCCGGG
TGGAGATGGACCGCGGCCGCATTGCAGAGCCCAGTGTGTGCGGGCGCTGCCACACCACCCACAGCATGGCACTCA
TCCACAACCGCTCCCTCTTCTCTGACAAGCAGATGATCAAGCTTCAGGAGTCTCCGGAAGACATGCCTGCAGGGC
AGACACCACACACAGTTATCCTGTTTGCTCACAATGATCTCGTTGACAAGGTCCAGCCTGGGGACAGAGTGAATG
TTACAGGCATCTATCGAGCTGTGCCTATTCGAGTCAATCCAAGAGTGAGTAATGTGAAGTCTGTCTACAAAACCC
ACATTGATGTCATTCATTATCGGAAAACGGATGCAAAACGTCTGCATGGCCTTGATGAAGAAGCAGAACAGAAAC
TTTTTTCAGAGAAACGTGTGGAATTGCTTAAGGAACTTTCCAGGAAACCAGACATTTATGAGAGGCTTGCTTCAG
CCTTGGCTCCAAGCATTTATGAACATGAAGATATAAAGAAGGGAATTTTGCTTCAGCTCTTTGGCGGGACAAGGA
AGGATTTTAGTCACACTGGAAGGGGCAAATTTCGGGCTGAGATCAACATCTTGCTGTGTGGCGACCCTGGTACCA
GCAAGTCCCAGCTGCTGCAGTACGTGTACAACCTCGTCCCCAGGGGCCAGTACACGTCTGGGAAGGGCTCCAGTG
CAGTTGGCCTCACTGCGTACGTAATGAAAGACCCTGAGACAAGGCAGCTGGTCCTGCAGACAGGTGCTCTTGTCC
TGAGTGACAACGGCATCTGCTGTATCGATGAGTTCGACAAGATGAATGAAAGTACAAGATCGGTATTGCATGAAG
TCATGGAACAGCAGACTCTGTCCATTGCAAAGGCTGGGATCATCTGTCAGCTCAATGCGCGCACCTCTGTCCTGG
CAGCAGCAAATCCCATTGAGTCTCAGTGGAATCTAAAAAAACAACCATTGAAAACATCCAGCTGCCTCATACTT
TATTATCAAGGTTTGATTTGATCTTCCTCATGCTGGACCCTCAGGACGAAGCCTATGACAGGCGTCTGGCTCACC
ACCTGGTCGCACTGTACTACCAGAGCGAGGAGCAGGCAGAGGAGGAGCTCCTGGACATGGCGGTGCTAAAGGACT
ACATTGCCTACGCGCACAGCACCATCATGCCGCGGCTAAGTGAGGAAGCCAGCCAGGCTCTCATCGAGGCTTATG
TAGACATGAGGAAGATTGGCAGTAGCCGGGGAATGGTTTCTGCATACCTCGACAGCTAGAGTCATTAATCCGCT
TAGCAGAAGCCCATGCTAAAGTAAGATTGTCTAACAAAGTTGAAGCCATTGATGTGGAAGAGGCCAAACGCCTCC
ATCGGGAAGCTCTGAAGCAGTCTGCAACTGATCCCCGGACTGGCATCGTGGACATATCTATTCTTACTACGGGGA
TGAGTGCCACCTCTCGTAAACGGAAAGAAGAATTAGCTGAAGCATTGAAAAAGCTTATTTTATCTAAGGGCAAAA
CACCAGCTCTAAAATACCAGCAACTTTTTGAAGATATTCGGGGACAATCTGACATAGCAATTACTAAAGATATGT
TTGAAGAAGCACTGCGTGCCCTGGCAGATGATGATTTCCTGACAGTGACTGGGAAGACCGTGCGCTTGCTCTGAA
GCCTTGTGAGCAAGGAAGGCTCCCTGCATGTCATGCAATTCTGCACGCCACATGGGTGTGGTCATGCAATCATCA
GTTGGCCGCCATCAGTGTAAATAGAGCTTAAAGTCATGGTTTGGCTGCATAAAAAATTTTCTAACTTGGGTTCAA
TATTTGTAGTGAAGTATCTGTTTTCATTTTTTTCACGTTATAAATAAAAATACTATGCTGGCCGGGCGCGGTGGC
TCACACCTGTAATCCCAGCACTTTGGGAGGCCAATGTGGGTGGATCATGAGGTCAGGAGTTCAAGACCAGCCTAG
CCAAGATGGTGAAACCCCGTCTCTAGTAAAGATAACAAAAAATTAGCTGGGCTTGATGGCATGCGCCTGTAATCC
CAGCTACTCGGGAGGTTGAGGCAGGAGATCGCTTAAACCCAGGCGGCAGAGGTTGCAGTGAGCCAAGATCGCGCC
ACTGCACTCCAGCCTCAGCAATAGAGTGAGACTGTCTCAAAAAAAAAA
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FIGURE 787A

GCTAAGAGGAGTCCCTGTGTGGGCAGCTGGAGCCTTCAGATTCTCTTCAGGGGAAGAGTCCACATCCCACCTCAT
CATGTCCCGAAGAAGCCAGCGCCTCACGCGCTACTCCCAGGGTGACGATGACGGCAGCAGCAGCAGCGGAGGGAG
CTCGGTGGCTGGGAGTCAGAGCACCCTGTTTAAAGACAGTCCTCTCAGGACCTTGAAGAGGAAATCCAGCAACAT
GAAGCGCCTGTCCCCAGCGCCACAGCTGGGCCCGTCCTCTGATGCACACACCTCCTACTACAGTGAGTCGCTGGT
CCACGAGTCCTGGTTCCCACCCAGGAGCTCCCTGGAGGAACTGCATGGTGACGCCAACTGGGGTGAGGACCTGCG
GGTGCGGAGGAGGAGAGGCACGGGTGGCTCAGAGAGCAGCAGGGCCAGCGGGCTTGTGGGGCGCAAGGCCACCGA
GGACTTCCTGGGCTCTTCCTCGGGCTACTCCTCTGAGGACGACTACGTGGGCTACTCGGATGTGGACCAGCAGAG
TTCCAGCTCGCGGCTCCGAAGCGCCGTCTCACGGGCGGGCTCCTTACTCTGGATGGTGGCCACTTCGCCAGGCCG
GCTCTTCAGACTTCTCTACTGGTGGGCTGGCACCACCTGGTACCGCCTGACCACAGCTGCCTCCCTCCTTGACGT
CTTCGTTTTAACCAGGCGCTTCTCGTCCCTGAAGACGTTCCTCTGGTTCCTGCTGCCGCTGCTCTTGCTGACGTG
CCTGACGTATGGTGCTTGGTATTTCTACCCCTATGGGCTGCAGACATTCCACCCTGCTTTGGTTTCCTGGTGGGC
AGCGAAGGACAGCAGGAGGCCGGATGAGGGCTGGGAAGCCAGAGACTCATCGCCACATTTCCAGGCTGAGCAGCG
TGTTATGTCCCGGGTACACTCTCTGGAGCGGCGTCTGGAAGCTCTTGCTGCTGAATTTTCCTCCAACTGGCAGAA
GGAGGCCATGCGGCTGGAACGTCTGGAGCTGCGGCAAGGGGCTCCTGGCCAGGGAGGTGGTGGTGGCCTGAGCCA
CGAGGACACCCTGGCGCTGCTGGAGGGGCTAGTGAGCCGCCGTGAAGCTGCCCTGAAGGAGGATTTCCGCAGGGA
AACTGCTGCTCGCATCCAGGAAGAACTGTCTGCCCTGAGAGCAGAGCATCAGCAAGACTCAGAAGACCTCTTCAA
GAAGATCGTCCGGGCCTCCCAGGAGTCCGAGGCTCGCATCCAGCAGCTGAAGTCAGAGTGGCAAAGCATGACCCA
GGAGTCCTTCCAGGAGAGCTCTGTGAAGGAGCTGAGGCGGCTGGAGGACCAGCTGGCCGGCCTGCAGCAGGAGCT
GGCGGCTCTGGCACTGAAGCAGAGCTCGGTGGCGGAAGAAGTGGGCCTGCTGCCCCAGCAGATCCAGGCCGTGCG
GGACGACGTGGAATCTCAGTTCCCGGCCTGGATCAGTCAGTTCCTTGCCCGAGGTGGAGGGGGCCGCGTGGGGCT
CCTTCAGAGAGAGGAGATGCAAGCTCAGCTGCGAGAGCTGGAGAGCAAGATCCTCACCCATGTGGCAGAGATGCA
GGGCAAGTCGGCCAGGGAAGCCGCGGCCTCCCTGAGCCTGACGCTGCAGAAAGAAGGTGTGATTGGAGTGACAGA
GGAGCAGGTGCACCACATCGTGAAGCAGGCCCTGCAGCGCTACAGTGAGGACCGCATCGGGCTGGCAGACTACGC
CCTGGAGTCAGGAGGGGCCAGCGTCATCAGCACCCGATGTTCTGAGACCTACGAGACCAAGACGGCCCTCCTCAG
CCTCTTCGGCATCCCCCTGTGGTACCACTCCCAGTCACCCCGAGTCATCCTCCAGCCAGATGTGCACCCAGGCAA
CTGCTGGGCCTTCCAGGGGCCACAGGGCTTCGCCGTGGTCCGCCTCTCTGCCCGCATCCGCCCCACAGCCGTTAC
CTTAGAGCATGTGCCCAAGGCCTTGTCACCCAACAGCACTATCTCCAGTGCCCCCAAGGACTTCGCCATCTTTGG
GTTTGACGAAGACCTGCAGCAGGAGGGGACACTCCTTGGCAAGTTCACTTACGATCAGGACGGCGAGCCTATTCA
GACGTTTCACTTTCAGGCCCCTACGATGGCCACGTACCAGGTGGTGGAGCTGCGGATCCTGACTAACTGGGGCCA
CCCCGAGTACACCTGCATCTACCGCTTCAGAGTGCATGGGGAGCCCGCCCACTAGCCCTGCTTACTGGTGCCTGC
TGCCAGCCATCTGGGAGTGGGTGAACAGCACCCCGCCGCTTCCCCCACACGCTTGCTCGGCGCTCTGACTTCTAG
GAGCACAAGAGAGGAGCCTGTGGCCCCATGCAGATGAAAAGGACGGGCAGGGTCTCCTGAGCAGCAGGTGGCTCG
AGGCGGTTAGCAGGCTCCAGCAGCTCCCTTCTTCCTTCCCTCTGTGCCCGTGGCGTCTGCTTCCATCCTGGGAG
TGTGTATATATGTAGCATATCATGGGGGACTGGGAAGTTGGGAGAGGTAGGACCTGACTGGTCTTGGCTGGGGTC
AGGGGCTGGTGCCTGGGAGCTGATGAAGCAGGTGCCAGGGCTGTGGGAGGGGCAAGCTACGGCCTGGGCTAGGTG
AGCTGCCTCTGCCCCTGGGCAAGGAAGCGAGGCCCTCTGGGAGGAGGGTGCTTAGCTCCAGAGCAGGATGGGACT
TCCCCAGGCAGGAAGCACTTGATGGAGAGCTGCCCAGCTCTCCTACAAGGTTAGTGCCCTCCACCTAGGGAAGCC
TGAACCACAGGGTCCCTGAGGGCCTTCGACAAAAGTGTGTATTTGTCCCGGGGAGGGTAGCAGTGGGCCATGGGG
CTTCTTGTGCCCTAAAGGGGACTGGCTGCTGTGATCTTCTAAGGGGCCCAGGGCCAACCCTGTAGGCTTCCCCTC
TGCTGGGGACGGTAGTTGCTTTTCTCTCCTGATGCTAGGTTGGGGCCCACCCTGCTCCCTGTTCCTGCTAGGG
CCTGCCAGTGCCCCTGAGCTTGCTTTCCACATTCTCCCAGGGTATGGAGACCTAGACCTGTCTTTGGGGCCATTA
GCATCTGGGGTTATAGCAAGAAGAGTGGGGAGCATGGAACTCCTGGGCTCTTGTGGGGACGTTCAGGGTATCGGG
GTGCGAGGTCTGTCTGCACCGGCCCCCACATCTAACCAGGCCCTGATGTAGGGGTCGTCCGCTCAGGCTGCCCCC
TTGGGCTCTTGCAGCTCTTGTTCAGGTAGTCGCCCTTCTGGTTTGTTCTCTGTGGGGCAGTTGGTGGGGGCTGGG
GGAAGAGGCTGGCAGAAGTTACCCTGGATAGGGAAGGGGAGGAGGGGACTTTTAGAGCCAGCAGGCCCCACTGT
ATTATGTATATATTTTTCAAGGTCTGTTTTTCTAACTGAAAAGCTAAGGGCTTGATTCCTAGCCCCGTTCTGTGG
GGCACTGGGTGATACTCAGTTTCTTGTTCCTGGCCGTGGAGAGGGGCCTGGGGCACTGGTTCCGGCTGTGTCTGG
TGGTCCGGCTGCAGGGAAGGGGCAAGAAGGCGGGCAGGCCTTCACTGCAGCACTGAGCCTCAAATCCGCTCTGGA

FIGURE 787B

GCATGAGGCTGGATGCAGTGGTGGTGAGGCCGCCCCGCTCCATCCCGAGGCAGCCAGGCTTTGTTTTGCGCTCTC
CTGTCACAAATGCTGCACTATTGGTTCTTAAGTTTTTTATCTCCAGATCCTAATTTATGCCTATGCAAAAAATAA
ATGACGCCCAAGAGCTG

FIGURE 788

AGTTCTCACTGAGACCTGTCACCCCGACTCAACGTGAGACGCACCGCCCGGACTCACC**ATG**CGTGAATGCATCTC
AGTCCACGTGGGGCAGGCAGGTGTCCAGATGGGCAATGCCTGCTGGGAGCTCTATTGCTTGGAACATGGGATTCA
GCCTGATGGGCAGATGCCCAGTGACAAGACCATTGGTGGAGGGGACGACTCCTTCACCACCTTCTTCTGTGAAAC
TGGTGCTGGAAAACACGTACCCCGGGCAGTTTTTGTGGATCTGGAGCCTACGGTCATTGATGAGATCCGAAATGG
CCCATACCGACAGCTCTTCCACCCAGAGCAGCTCATCACTGGGAAAGAGGATGCTGCCAACAACTATGCCCGTGG
TCACTATACCATTGGCAAGGAGATCATTGACCCAGTGCTGGATCGGATCCGCAAGCTGTCTGACCAGTGCACAGG
ACTTCAGGGCTTCCTGGTGTTCCACAGCTTTGGTGGGGGCACTGGCTCTGGCTTCACCTCACTCCTGATGGAGCG
GCTCTCTGTTGACTATGGCAAGAAATCCAAGCTGGAATTCTCCATCTACCCAGCCCCCCAGGTGTCTACAGCCGT
GGTCGAGCCCTACAACTCTATCCTGACCACCCACACCACCCTGGAGCACTCAGACTGTGCCTTCATGGTGGACAA
CGAAGCAATCTATGACATCTGCCGCCGCAACCTAGACATCGAGCGCCCAACCTACACCAACCTCAATCGCCTCAT
TAGCCAAATTGTCTCCTCCATCACAGCTTCTCTGCGCTTTGACGGGGCCCTCAATGTGGACCTGACAGAGTTCCA
GACCAACCTGGTGCCCTACCCTCGCATCCACTTCCCCCTGGCCACCTATGCACCAGTCATCTCTGCAGAAAAGGC
ATACCACGAGCAGCTGTCGGTGGCAGAGATCACCAATGCCTGCTTTGAGCCTGCCAACCAGATGGTAAAGTGTGA
TCCCCGGCACGGCAAGTACATGGCCTGCTGCCTGCTGTACCGTGGAGATGTGGTGCCCAAGGATGTCAACGCTGC
CATTGCCGCCATCAAGACCAAGCGCAGCATTCAGTTTGTGGACTGGTGCCCCACAGGCTTCAAGGTTGGTATCAA
CTACCAGCCTCCCACTGTGGTGCCTGGGGGTGACCTGGCCAAGGTGCAGCGTGCCGTGTGCATGCTGAGCAACAC
GACCGCCATCGCCGAGGCCTGGGCCCGCCTGGACCACAAGTTCGACCTGATGTATGCCAAGAGGGCGTTTGTGCA
CTGGTATGTGGGTGAGGGCATGGAGGAGGGTGAGTTCTCCGAGGCCCGTGAGGATATGGCTGCCCTGGAGAAGGA
TTATGAGGAGGTGGGCATCGACTCCTATGAGGACGAGGATGAGGGAGAAGAA**TAA**AGCAGCTGCCTGGAGCCTAT
TCACTATGTTTATTGCAAAATCCTTTCGAAATAAACAGTTTCCTTGCACGGTTAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAA

FIGURE 789

MRECISVHVGQAGVQMGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFTTFFCETGAGKHVPRAVFVDLEPTVI
DEIRNGPYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDPVLDRIRKLSDQCTGLQGFLVFHSFGGGTGSGFT
SLLMERLSVDYGKKSKLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT
NLNRLISQIVSSITASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISAEKAYHEQLSVAEITNACFEPAN
QMVKCDPRHGKYMACCLLYRGDVVPKDVNAAIAAIKTKRSIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV
CMLSNTTAIAEAWARLDHKFDLMYAKRAFVHWYVGEGMEEGEFSEAREDMAALEKDYEEVGIDSYEDEDEGEE

FIGURE 790

GACCGAAGCAAGAGCTGGTTCAGGTGGCAGCCACAGCAGCCTCAGGGACCTCAGCAACT**ATG**GCCTCCTGCCCAG
ACTCTGATAATAGCTGGGTGCTTGCTGGCTCCGAGAGCCTGCCAGTGGAGACACTGGGCCCGGCATCCAGGATGG
ACCCAGAATCTGAGAGAGCCCTGCAGGCCCCTCACAGCCCCTCCAAGACAGATGGGAAAGAATTAGCTGGGACCA
TGGATGGAGAAGGGACGCTCTTCCAGACTGAAAGCCCTCAGTCTGGCAGCATTCTAACAGAGGAGACTGAGGTCA
AGGGCACCCTGGAAGGTGATGTTTGTGGTGTGGAGCCTCCTGGCCCAGGAGACACAGTAGTCCAGGGAGACCTGC
AGGAGACCACCGTGGTGACAGGCCTGGGACCAGACACACAGGACCTGGAAGGCCAGAGCCCTCCACAGAGCCTGC
CTTCAACCCCCAAAGCAGCTTGGATCAGGGAGGAGGGCCGCTGCTCCAGCAGTGACGATGACACCGACGTGGACA
TGGAGGGTCTGCGGAGACGGCGGGGCCGGGAGGCCGGCCCACCTCAGCCCATGGTGCCCCTGGCTGTGGAGAACC
AGGCTGGGGGTGAGGGTGCAGGCGGGGAGCTGGGCATCTCCCTCAACATGTGCCTCCTTGGGGCCCTGGTTCTGC
TTGGCCTGGGGGTCCTCCTCTTCTCAGGTGGCCTCTCAGAGTCTGAGACTGGGCCCATGGAGGAAGTGGAGCGGC
AGGTCCTCCCAGACCCCGAGGTGCTGGAAGCTGTGGGGGACAGGCAGGATGGGCTAAGGGAACAGCTGCAGGCCC
CAGTGCCTCCTGACAGTGTCCCCAGCCTGCAAAACATGGGTCTTCTGCTGGACAAGCTGGCCAAGGAGAACCAGG
ACATCCGGCTGCTGCAGGCCCAGCTGCAGGCCCAAAAGGAAGAGCTTCAGAGCCTGATGCACCAGCCCAAAGGGC
TAGAGGAGGAGAATGCCCAGCTCCGGGGGGCTCTGCAGCAGGGCGAAGCCTTCCAGCGGGCTCTGGAGTCAGAGC
TGCAGCAGCTGCGGGCCCGGCTCCAGGGGCTGGAGGCCGACTGTGTCCGGGGCCCAGATGGGGTGTGCCTCAGTG
GGGGTAGAGGCCCACAGGGTGACAAGGCCATCAGGGAGCAAGGCCCCAGGGAGCAGGAGCCAGAACTCAGCTTCC
TGAAGCAGAAGGAACAGCTGGAGGCTGAGGCACAGGCATTAAGGCAAGAGTTAGAGAGGCAGCGACGGCTGCTGG
GGTCTGTACAGCAGGATCTGGAGAGGAGCTTGCAGGATGCCAGCCGCGGGGACCCAGCTCATGCTGGCTTGGCTG
AGCTGGGCCACAGATTGGCCCAGAAACTGCAGGGCCTGGAGAACTGGGGCCAGGACCCTGGGGTCTCTGCCAATG
CCTCAAAGGCCTGGCACCAGAAGTCCCACTTCCAGAATTCTAGGGAGTGGAGTGGAAAGGAAAAGTGGTGGGATG
GGCAGAGAGACCGGAAGGCTGAGCACTGGAAACATAAGAAGGAAGAATCTGGCCGGGAAAGGAAGAAGAACTGGG
GAGGTCAGGAGGACAGGGAGCCAGCAGGAAGGTGGAAGGAGGGCAGGCCAAGGGTGGAGGAGTCGGGGAGCAAGA
AGGAGGGCAAGCGACAGGGCCCGAAGGAACCCCCAAGGAAAAGTGGTAGCTTCCACTCCTCTGGAGAAAAGCAGA
AGCAACCTCGGTGGAGGGAAGGGACTAAGGACAGCCATGACCCCCTGCCATCCTGGGCAGAGCTGTTGAGGCCCA
AGTACCGGGCACCCCAGGGCTGCTCAGGTGTGGACGAGTGTGCCCGGCAGGAGGGCCTGACTTTCTTTGGCACAG
AGCTAGCCCCAGTGCGGCAACAGGAGCTGGCCTCTCTGCTAAGAACATACTTGGCACGGCTGCCCTGGGCTGGGC
AGCTGACCAAGGAGCTACCCCTCTCACCTGCTTTCTTTGGTGAGGATGGCATCTTCCGTCATGACCGCCTCCGCT
TCCGGGATTTTGTGGATGCCCTGGAGGACAGCTTGGAGGAGGTGGCTGTGCAACAGACAGGTGATGATGATGAAG
TAGATGACTTTGAGGACTTCATCTTCAGCCACTTCTTTGGAGACAAAGCACTGAAGAAGAGGTCAGGGAAGAAGG
ACAAGCACTCACAGAGCCCAAGAGCTGCGGGGCCCAGGGAGGGGCACAGCCATAGCCACCACCACCACCACCGGG
GC**TGA**CACCCTGCCCCACAGGGAATGGCCTTGGCCTGGCCCAGCCCAAGATCCCAGCGTTATCTAACTCCTGGAG
GGTGGACTCTGTCCTGGCTTGTTTGGTGTCCTCAGATATCTTTCACACAGTAGAGCAAAATCACCAGCCCTGCAC
TGATGTCACTTTATGTAGAAAAAGGCCTTAGCTGGACCTGCGTTGCCGTCTATGCAAATGCATGCAAATACTCCA
GGCCCTGGGATGTGGGCTTGTGTTTTGTCACTGTGAAGGGGGAGATGGGAGAGGAGCCTGTTTGGGGTGGGGTC
TGGGGAAGGCAATCTGATTCTGAAGCTAAAGAGCTTTCATCCTCTTGAGTGTATGTCCCCATAGTGGGCCCCTTG
ACCCACATGCTGACCGGTGCCTTGGGATTTGACTAGAGTTGCTGGCTCGAGGCCCAGCACGAGGACTTACCCTGG
GGTTTTGTTAGGTTTGGAAGCAGCTGTCCCTAGGGGGTGAAGTCCCCCCCCTTTTTTTTTTTACCCCTGCTTCTC
CCACGGCTTCACCTCCCTATGTGAACTGTAGACTCAGATCCCAATAAAGTGCTGTTGCAGCTATGATGCTAGGTG
GTTTCTAAGCACAGGGGACACCCCACACCCCCTGCCTGAATGGATGGGTCCATCCCAGGCACTGGTACTTGCCCC
CTTGTTCTGTATCCCCCTTTGCCCTTGCCTTGCCCTTCCAACAAACCCTAGGCCCTTGAGAAGCTGATACTTCTC
CTTTTGCTCACAGCTGCCTTGGCCCCACCCCTGGGAGATGTAGCAAATTGAGTGTGGGTTTTGGAGTCTGAGCCT
CAGGCTCAAATCCAGGCCAAGTGATCTTGGGCAAGTTAATCTCTGGGAACTTTGGGTTTCTTATCCTCAAAAAAG
GCGATGGAAGGGCTGGGGAAGTGATTAAATAAAAGCAACGCAAGAAAAAAAAAAAAAAAAAAAA

FIGURE 791

MASCPDSDNSWVLAGSESLPVETLGPASRMDPESERALQAPHSPSKTDGKELAGTMDGEGTLFQTESPQSGSILT
EETEVKGTLEGDVCGVEPPGPGDTVVQGDLQETTVVTGLGPDTQDLEGQSPPQSLPSTPKAAWIREEGRCSSSDD
DTDVDMEGLRRRRGREAGPPQPMVPLAVENQAGGEGAGGELGISLNMCLLGALVLLGLGVLLFSGGLSESETGPM
EEVERQVLPDPEVLEAVGDRQDGLREQLQAPVPPDSVPSLQNMGLLLDKLAKENQDIRLLQAQLQAQKEELQSLM
HQPKGLEEENAQLRGALQQGEAFQRALESELQQLRARLQGLEADCVRGPDGVCLSGGRGPQGDKAIREQGPREQE
PELSFLKQKEQLEAEAQALRQELERQRRLLGSVQQDLERSLQDASRGDPAHAGLAELGHRLAQKLQGLENWGQDP
GVSANASKAWHQKSHFQNSREWSGKEKWWDGQRDRKAEHWKHKKEESGRERKKNWGGQEDREPAGRWKEGRPRVE
ESGSKKEGKRQGPKEPPRKSGSFHSSGEKQKQPRWREGTKDSHDPLPSWAELLRPKYRAPQGCSGVDECARQEGL
TFFGTELAPVRQQELASLLRTYLARLPWAGQLTKELPLSPAFFGEDGIFRHDRLRFRDFVDALEDSLEEVAVQQT
GDDDEVDDFEDFIFSHFFGDKALKKRSGKKDKHSQSPRAAGPREGHSHSHHHHHRG

FIGURE 792

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CTCTTCTCACATCAGCGGGTCCAGGCCCAACCGACAGACTATGGGGGCTCCTTCACCAGGCGCTGCGTGGAGTGG
CTGCTGGGCCTCTACTTCCTCAGCCACATCCCCATCACCCTGTTCATGGACCTGCAGGCGGTCGTGCCGCGCGAG
CTCTACCCAGTCGAGTTTAGAAACCTGCTGAAGTGGTATGCTAAGGAGTTCAAAGACCCACTGCTACAGGAGCCC
CCAGCCTGGTTTAAGTCCTTTCTGTTTTGCGAGCTTGTGTTTCAGCTGCCTTTCTTTCCCATTGCAACGTATGCC
TTCCTCAAAGGAAGCTGCAAGTGGATTCGAACTCCTGCAATCATCTACTCTGTTCACACCATGACAACCTTAATT
CTGATACTCTCCACATTTCTGTTTGAGGATTTCTCCAAAGCCAGTGGTTTCAAGGGACAAAGACCTGAGACTTTG
CATGAACGGTTAACCCTTGTGTCTGTCTATGCCCCCTACTTACTCATCCCATTCATACTTTTAATTTTCATGTTG
CGGAGCCCCTACTACAAGTATGAAGAGAAAAGAAAAAAAAATGAAGGAAACAACCACTGGCCCAGGGTAGAGAT
GCCTACAGGGTGGTTGCTTGTTGGATACATACAGGAACACTGCTCAGAACCCACGTCTTCAGCAGCATTTGAAAC
ACTGGCAGCAATGCACAAGAGCAAGATGGTGTCAGGAACCATGTCAAACCCTCACCTTCTTCCATTTTTTTTTTT
TTTTTGAGACAGTCTCACTCTGTTGCCAGGCTGGAGTAAAGGGCAGTGGCATGATCTCGGCTCACTGCAACCTCC
GCCTCCTGGGCTCAAGCCATCTTCCTTAGCCTCCCAAGTAGCTAGAACTACAGGTGTGTACCAACACGTATGGCT
AATTTGTTTTGTTTTTTTTGTGTGTGTGGAGACAGGGTTTTGCCATGTTGCCCAGGTTGGTCTCGAACGCCTAGG
CTCAAGTGATCTGCCCACCTCAGTCTCCCTAAGTGCTGGGATTACAGACGTGAACCACTGGGCCCAGCCCAAACC
TTCACCTTCTAAGGGCACTGGGATGAACAGACCGATCGGCTTGAGGGTGGGCAAAGGGGTGTGGGCTAGGTTATA
AGGAAGTGGTACCAAATAACTGTGTTGCCTGAGTTCCACCGCAAGATTACTAAAAGCAGGACCAGACCAGAAACT
GCTAAAGAACATGGCCTGTTTGACATGTTCATGAGTCACCTGACCCACAGCATATATGCTTATGACTAAACCCTC
CACTCCTGATTCTCAAGAGTGTATCACCTGTCAGCAAAATGAATAGTGGGATATTTTGGGCCATTTTAAATGTGA
AATTTTGCCTCTTTAATGTTAATTCAAAACTATATCAATGTTTTCTTGTTCCCACCTCTAACCCAAGGAAAAAAG
AGAAACATACTATGCAAAGGAAGTTTAAACTTAAGTTTTCCTTAAGGGTCAGCCCAACAATGACTTTCAGTCAA
ATGGATTAAACTGGAAAATGTTTTTGTTTCTGTTGTAAACAGATCATCCTAGGCGAAAGTTTTTTTTGTTTGTTT
GCTTTTAAATTAGTTTATTTCTAAATCTTAGTCTTCCACATTTCTAGAGGCCACCTGACACAAGTCCCTGTATCT
GAAGTCTAGCATCTCAAGGCTGATCTGGAAGTGTGCTAGTATGCTCCCTAGTGGATAACTTAATCTTTTAATACA
GTTCCGTCATTCCCATCTTGTTTTCAGAAGAGAAGGTGGCTACAGCCAGGCATAACTTATCCACTGTGTGCATAG
AGGGTCTCTTCACGTTGATGCTTGGCATTCCATCAGCTTTCTCTAAGTCTTTGCTCAAGTTCAAGGTTAAAATGA
TGTTAGACAACAGGTCCCAGTCAGTCCCCTCTATTTTCACCCATTTTGCTCACAAGCCATATTGGCCCGATTAGT
GGTACTGTCTGACTCACGTGTGTGATCCAAATAAAGGTAGCTGCCGGGAATT
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FIGURE 793

CTCTTCTCACATCAGCGGGTCCAGGCCCAACCGACAGACTATGGGGGCTCCTTCACCAGGCGCTGCGTGGAGTGG
CTGCTGGGCCTCTACTTCCTCAGCCACATCCCCATCACCCTGTTCATGGACCTGCAGGCGGTCGTGCCGCGCGAG
CTCTACCCAGTCGAGTTTAGAAACCTGCTGAAGTGGTATGCTAAGGAGTTCAAAGACCCACTGCTACAGGAGCCC
CCAGCCTGGTTTAAGTCCTTTCTGTTTTGCGAGCTTGTGTTTCAGCTGCCTTTCTTTCCCATTGCAACGTATGCC
TTCCTCAAAGGAAGCTGCAAGTGGATTCGAACTCCTGCAATCATCTACTCTGTTCACACCATGACAACCTTAATT
CTGATACTCTCCACATTTCTGTTTGAGGATTTCTCCAAAGCCAGTGGTTTCAAGGGACAAAGACCTGAGACTTTG
CATGAACGGTTAACCCTTGTGTCTGTCTATGCCCCCTACTTACTCATCCCATTCATACTTTTAATTTTCATGTTG
CGGAGCCCCTACTACAAGTATGAAGAGAAAAGAAAAAAAAAA**TGA**AGGAAACAACCACTGGCCCAGGGTAGAGAT
GCCTACAGGGTGGTTGCTTGTTGGATACATACAGGAACACTGCTCAGAACCCACGTCTTCAGCAGCATTTGAAAC
ACTGGCAGCAATGCACAAGAGCAAGATGGTGTCAGGAACCATGTCAAACCCTCACCTTCTTCCATTTTTTTTTTT
TTTTTGAGACAGTCTCACTCTGTTGCCAGGCTGGAGTAAAGGGCAGTGGCATGATCTCGGCTCACTGCAACCTCC
GCCTCCTGGGCTCAAGCCATCTTCCTTAGCCTCCCAAGTAGCTAGAACTACAGGTGTGTACCAACACGTATGGCT
AATTTGTTTTGTTTTTTTTGTGTGTGTGGAGACAGGGTTTTGCCATGTTGCCCAGGTTGGTCTCGAACGCCTAGG
CTCAAGTGATCTGCCCACCTCAGTCTCCCTAAGTGCTGGGATTACAGACGTGAACCACTGGGCCCAGCCCAAACC
TTCACCTTCTAAGGGCACTGGGATGAACAGACCGATCGGCTTGAGGGTGGGCAAAGGGGTGTGGGCTAGGTTATA
AGGAAGTGGTACCAAATAACTGTGTTGCCTGAGTTCCACCGCAAGATTACTAAAAGCAGGACCAGACCAGAAACT
GCTAAAGAACATGGCCTGTTTGACATGTTCATGAGTCACCTGACCCACAGCATATATGCTTATGACTAAACCCTC
CACTCCTGATTCTCAAGAGTGTATCACCTGTCAGCAAAATGAATAGTGGGATATTTGGGCCATTTTAAATGTGA
AATTTTGCCTCTTTAATGTTAATTCAAAACTATATCAATGTTTTCTTGTTCCCACCTCTAACCCAAGGAAAAAAG
AGAAAACATACTATGCAAAGGAAGTTTAAACTTAAGTTTTCCTTAAGGGTCAGCCCAACAATGACTTTCAGTCAA
ATGGATTAAACTGGAAAATGTTTTTGTTTCTGTTGTAAACAGATCATCCTAGGCGAAAGTTTTTTTGTTTGTTT
GCTTTTAAATTAGTTTATTTCTAAATCTTAGTCTTCCACATTTCTAGAGGCCACCTGACACAAGTCCCTGTATCT
GAAGTCTAGCATCTCAAGGCTGATCTGGAAGTGTGCTAGTATGCTCCCTAGTGGATAACTTAATCTTTTAATACA
GTTCCGTCATTCCCATCTTGTTTTCAGAAGAGAAGGTGGCTACAGCCAGGCATAACTTATCCACTGTGTGCATAG
AGGGTCTCTTCACGTTGATGCTTGGCATTCCATCAGCTTTCTCTAAGTCTTTGCTCAAGTTCAAGGTTAAAATGA
TGTTAGACAACAGGTCCCAGTCAGTCCCCTCTATTTTCACCCATTTTGCTCACAAGCCATATTGGCCCGATTAGT
GGTACTGTCTGACTCACGTGTGTGATCCAAATAAAGGTAGCTGCCGGGAATT

FIGURE 794

LFSHQRVQAQPTDYGGSFTRRCVEWLLGLYFLSHIPITLFMDLQAVVPRELYPVEFRNLLKWYAKEFKDPLLQEP
PAWFKSFLFCELVFQLPFFPIATYAFLKGSCKWIRTPAIIYSVHTMTTLILILSTFLFEDFSKASGFKGQRPETL
HERLTLVSVYAPYLLIPFILLIFMLRSPYYKYEEKRKKK

FIGURE 795

ATGTGGCTTCATCGAGTATTCCTTTGTGAATTCCTGGATGAAATTTTCAAGGCAAACAGGAAAAGCACTGAAATT
GCTGAATGGTGGCGAACGGAGCCACGAGGGAAGGGAGCGCCGCCGGCAGCTGCCGGGACACCAGGATACCACGCG
GCCAGCACCGAAACGCTAGGCTCGCGCTCACAACCGCAATCTACACTGAGTAGCCGCGCGCCGAACGGCGTGACT
AAGCCCCGCCCACACGGCGCTCCTGGCGGCCAATGGAAATGGCTTACGAGACGCCTTCTCCACGCGCTATACTTA
TACGGACCAATGGGTGCGCCCTGTGGGGAGTGCCGCCCCCTGTCCACGAGCCTCCTCTTCTCGCCAGCCAATGGA
AGCGGTCTGCCTAGCCCTCGCGGGGGCAAGGCGGCGACCGAGGCGCGTGGGTCTGGGAAGGCGCGCGGATTTGGC
CTCTTCTCACATCAGCGGGTCCAGGCCCAACCGACAGACTATGGGGGCTCCTTCACCAGGCGCTGCGTGGAGTGG
CTGCTGGGCCTCTACTTCCTCAGCCACATCCCCATCACCCTGTTCATGGACCTGCAGGCGGTCGTGCCGCGCGAG
CTCTACCCAGTCGAGTTTAGAAACCTGCTGAAGTGGTATGCTAAGGAGTTCAAAGACCCACTGCTACAGGAGCCC
CCAGCCTGGTTTAAGTCCTTTCTGTTTTGCGAGCTTGTGTTTCAGCTGCCTTTCTTTCCCATTGCAACGTATGCC
TTCCTCAAAGGAAGCTGCAAGTGGATTCGAACTCCTGCAATCATCTACTCTGTTCACACCATGACAACCTTAATT
CTGATACTCTCCACATTTCTGTTTGAGGATTTCTCCAAAGCCAGTGGTTTCAAGGGACAAAGACCTGAGACTTTG
CATGAACGGTTAACCCTTGTGTCTGTCTATGCCCCCTACTTACTCATCCCATTCATACTTTTAATTTTCATGTTG
CGGAGCCCCTACTACAAGTATGAAGAGAAAAGAAAAAAAAAA**TGA**AGGAAACAACCACTGGCCCAGGGTAGAGAT
GCCTACAGGGTGGTTGCTTGTTGGATACATACAGGAACACTGCTCAGAACCCACGTCTTCAGCAGCATTTGAAAC
ACTGGCAGCAATGCACAAGAGCAAGATGGTGTCAGGAACCATGTCAAACCCTCACCTTCTTCCATTTTTTTTTTT
TTTTTGAGACAGTCTCACTCTGTTGCCAGGCTGGAGTAAAGGGCAGTGGCATGATCTCGGCTCACTGCAACCTCC
GCCTCCTGGGCTCAAGCCATCTTCCTTAGCCTCCCAAGTAGCTAGAACTACAGGTGTGTACCAACACGTATGGCT
AATTTGTTTTGTTTTTTTTGTGTGTGTGGAGACAGGGTTTTGCCATGTTGCCCAGGTTGGTCTCGAACGCCTAGG
CTCAAGTGATCTGCCCACCTCAGTCTCCCTAAGTGCTGGGATTACAGACGTGAACCACTGGGCCCAGCCCAAACC
TTCACCTTCTAAGGGCACTGGGATGAACAGACCGATCGGCTTGAGGGTGGGCAAAGGGGTGTGGGCTAGGTTATA
AGGAAGTGGTACCAAATAACTGTGTTGCCTGAGTTCCACCGCAAGATTACTAAAAGCAGGACCAGACCAGAAACT
GCTAAAGAACATGGCCTGTTTGACATGTTCATGAGTCACCTGACCCACAGCATATATGCTTATGACTAAACCCTC
CACTCCTGATTCTCAAGAGTGTATCACCTGTCAGCAAAATGAATAGTGGGATATTTTGGGCCATTTTAAATGTGA
AATTTTGCCTCTTTAATGTTAATTCAAAACTATATCAATGTTTTCTTGTTCCCACCTCTAACCCAAGGAAAAAAG
AGAAACATACTATGCAAAGGAAGTTTAAACTTAAGTTTTCCTTAAGGGTCAGCCCAACAATGACTTTCAGTCAA
ATGGATTAAACTGGAAAATGTTTTTGTTTCTGTTGTAAACAGATCATCCTAGGCGAAAGTTTTTTTGTTTGTTT
GCTTTTAAATTAGTTTATTTCTAAATCTTAGTCTTCCACATTTCTAGAGGCCACCTGACACAAGTCCCTGTATCT
GAAGTCTAGCATCTCAAGGCTGATCTGGAAGTGTGCTAGTATGCTCCCTAGTGGATAACTTAATCTTTTAATACA
GTTCCGTCATTCCCATCTTGTTTTCAGAAGAGAAGGTGGCTACAGCCAGGCATAACTTATCCACTGTGTGCATAG
AGGGTCTCTTCACGTTGATGCTTGGCATTCCATCAGCTTTCTCTAAGTCTTTGCTCAAGTTCAAGGTTAAAATGA
TGTTAGACAACAGGTCCCAGTCAGTCCCCTCTATTTTCACCCATTTTGCTCACAAGCCATATTGGCCCGATTAGT
GGTACTGTCTGACTCACGTGTGTGATCCAAATAAAGGTAGCTGCCGGGAATT

FIGURE 796

MWLHRVFLCEFLDEIFKANRKSTEIAEWWRTEPRGKGAPPAAAGTPGYHAASTETLGSRSQPQSTLSSRAPNGVT
KPRPHGAPGGQWKWLTRRLLHALYLYGPMGAPCGECRPLSTSLLFSPANGSGLPSPRGGKAATEARGSGKARGFG
LFSHQRVQAQPTDYGGSFTRRCVEWLLGLYFLSHIPITLFMDLQAVVPRELYPVEFRNLLKWYAKEFKDPLLQEP
PAWFKSFLFCELVFQLPFFPIATYAFLKGSCKWIRTPAIIYSVHTMTTLILILSTFLFEDFSKASGFKGQRPETL
HERLTLVSVYAPYLLIPFILLIFMLRSPYYKYEEKRKKK

FIGURE 797

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GGCTTACAGGAGGGCAGCTCTGCAGTTGGGAGGGGCACCGTCCGGAGGAGACCAGGCCTCTACACACCCCCCACT
CTACTTATCATCCCTGCTCACACACCCTTGTCCAAGGCTTTATGCATCGGATTTATTTTTCCAAATCAAGAGGAC
AGTGATAGATGCATTTTCCCCAGGCTGTCTCAGAAAGGTCGCTAAATGTATACTGTTGTCAGAATTGCTGAGATC
TCCCCCCACTTTTGGTTTTTGCAGCAGTAAAAACTCTTTCCACTGTGACTTATTTTCTCTCTCAGGCAGCCAGCC
ACCTGGTCCCTTGTGCTGACTCTAGCACAGTGGCCAGGATCCAATACGAGTCCAGGGGTGACCGCAGGATGGTGG
GGGCAGCGGGCTTCTCCACCTACCCCAGCCACCAAGGCCCTGACGCACTGCCTCCTGCACCTTCAGCACATCCCT
GTGCACAGCTGGAAGGGTGCATGGCCCGCTCACCTTTGTTCAGATGGGTGGAAACGCTGATGATACCAGCTCCTC
CCTGCCGTGCCCCTGCCACGGAGCAGGCATTGTGAACTGGCTGGTGTTTGCAGTCCCACGTGGCATGGCCTCCAG
CCCAACCCACAGTGGAGACTGGAGACAGGGCAATGAGTCTGGTCGGGGGCACGTGGACATGCCCCATAGGGGCCC
CACCCAGACTTAACAGGCAAGGTCCTGGGCATTGCGCGACGCAGGACTCAATGCTAAAGCAAGCCTGCCTGGCTC
TGTGCCAGGGCCCCTCTTCTGATTTACACATCCCATTTTTACACAGACCCTTCCTTCTTAATAAAGGCTGACAGT
TCTGTTGGCAGCCAAGAACCCACACCATGAAGACAGGGAGTGAGGGGCCCTTTGTGCCCAACTCCAGCACAGCTGC
GTTCTGGGGTGTGTGAGAGGCATGTTCGTGTCTGTGCGCTGGTGGTCTCGTGAGACAGTTCCGAGGACGGGGAAA
TTGCAGGGTGGTGGGGGCGTGAGGCTTATATGTGGAACTGATGCAGAGTTCGCCTGCAGACGGATCTGGATATAC
ACTATGTATAATTGTTACGTGTAATTTAAAATATATCTGTTTGCCATCGTCATGAGAAGATTATATGTAAGGCTC
TGAAGGGAGAGGGAGATGTACATTCTGCCAGGCTCCTGGGGACCTTATCCGAGTC**ATG**AAATTGATGACTGTTGA
TCCAGTGGTGCAAGAAGCTACACTCCATGTGTCATCACGCTTA**TGA**CTCCTAATGTATTTTTAAGGCAAAAAATG
TCAGCCGACTCCATCTTCACCCCTCGATTCCTCGAGTCCAGCCTTTCTGTGCCAGTGCTTCACTGAGCCACAACG
CTCTCGCCATCGGGACCCGGCTGGGCCTGGAGTCTCGGGGCACAGTTGCCATGGAGCCCTCCTGGGTCATTCTAC
AAATGTGCTGAGTGCCAGCTGAAAACCCCACAGGAGATGGAGTACCTTGGCCAAGCTTAAAGAGAAGATTTTCTC
AGGGTATTTATTAGTGTGTCCAGCAGGGTCAGGAAGCAGGATGGAAAGATGCATTCAGACTGTTAATTTATTAAC
AAGGCAAATGATTTTGTGTTTCTTGATGACAGACTATTAAGTTTGGGACTTATTTTCCCATTTGAGAAGTTATAA
TATATATTTAAGATGATAAGTTTCCTGCTTAAGTTGTGCCTTTCAGCTTCAATGAGTTTAAGGAGCACTAAGGGT
AATGATACCAATGAGGGTTGGTTTATTATCAAACCTGAATAGCTGTGGTTTCTCCAGTAAATATTTTCTTCTACT
GAACATGGAGCCATTATTAAGAGTTGTGTGTTTTTATTATGTACATTTGTATATTTTTTTGCTTGTTTGATGTT
CTATTTTTCTAATAGTTTTCTTTTAGTTTCTTAAAGTTGTGATACTAGATTTAGATTCTGATGCTAACTGCAAAT
CAGGTTGGTCTCTGCTGGGTCTCTCCTGCTTTTATTTTACTTTAAGGACAAGTGTAGTTGTCGTCCACCACCTTT
CAAAAAATGTGAAACTGCCCTGCCTCCCCTTTTTGCTGACAACACTGTGTACATTGACCACTTCCTACCATACTT
TATGTTGTAAAATCAAACTCTTTTGTGGTACATTATCTCATGCTTCTGCAAATTCGAATAAATTCTATGGCTTCC
AAAAAAAAAAAAAAA
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FIGURE 798

MKLMTVDPVVQEATLHVSSRL

FIGURE 799

GCGTCACCACAGAGGCAAGACAAGGGTCCATATCGCGGCATCCGGCTCCCGCCCGTCTTCAGGAGAGAAAGAAAA
AATAAAATATACTTGGGGAAGTTGTACCTGCCAGAATTAGTAAGAGCTTTCTTTAAGAAGACATTTGTCAAACTC
AACAAATTGAAGGTTAACACCTTAAGAGTTGTAGTTACTGACCAGAAA**ATG**GACAGACTTCTTAGACTTGGAGG
AGGTATGCCTGGACTGGGCCAGGGGCCACCTACAGATGCTCCTGCAGTGGACACAGCAGAACAAGTCTATATCTC
TTCCCTGGCACTGTTAAAAATGTTAAAACATGGCCGTGCTGGAGTTCCAATGGAAGTTATGGGTTTGATGCTTGG
AGAATTTGTTGATGATTATACCGTCAGAGTGATTGATGTGTTTGCTATGCCACAGTCAGGAACAGGTGTCAGTGT
GGAGGCAGTTGATCCAGTGTTCCAAGCTAAAATGTTGGATATGTTGAAGCAGACAGGAAGGCCGGAGATGGTTGT
TGGTTGGTATCACAGTCACCCTGGCTTTGGTTGTTGGCTTTCTGGTGTGGATATCAACACTCAGCAGAGCTTTGA
AGCCTTGTCGGAGAGAGCTGTGGCAGTGGTTGTGGATCCCATTCAGAGTGTAAAAGGAAAGGTTGTTATTGATGC
CTTCAGATTGATCAATGCTAATATGATGGTCTTAGGACATGAACCAAGACAAACAACTTCGAATCTGGGTCACTT
AAACAAGCCATCTATCCAGGCATTAATTCATGGACTAAACAGACATTATTACTCCATTACTATTAACTATCGGAA
AAATGAACTGGAACAGAAGATGTTGCTAAATTTGCATAAGAAGAGTTGGATGGAAGGTTTGACACTTCAGGACTA
CAGTGAACATTGTAAACACAATGAATCAGTGGTAAAAGAGATGTTGGAATTAGCCAAGAATTACAATAAGGCTGT
AGAAGAAGAAGATAAGATGACACCTGAACAGCTGGCAATAAAGAATGTTGGCAAGCAGGACCCCAAACGTCATTT
GGAGGAACATGTGGATGTACTTATGACCTCAAATATTGTCCAGTGTTTAGCAGCTATGTTGGATACTGTCGTATT
TAAA**TAA**

FIGURE 800

MDRLLRLGGGMPGLGQGPPTDAPAVDTAEQVYISSLALLKMLKHGRAGVPMEVMGLMLGEFVDDYTVRVIDVFAM
PQSGTGVSVEAVDPVFQAKMLDMLKQTGRPEMVVGWYHSHPGFGCWLSGVDINTQQSFEALSERAVAVVVDPIQS
VKGKVVIDAFRLINANMMVLGHEPRQTTSNLGHLNKPSIQALIHGLNRHYYSITINYRKNELEQKMLLNLHKKSW
MEGLTLQDYSEHCKHNESVVKEMLELAKNYNKAVEEEDKMTPEQLAIKNVGKQDPKRHLEEHVDVLMTSNIVQCL
AAMLDTVVFK

FIGURE 801A

GGGGACATTTTGGATTAACCTTATGTAGGTTGCCAGCTAATGAATTGTAATTGATTTCAATCTTAGCTGATAAAT
CTAATTGGTAATTTATAGAACAAATATTTGATAAGCTCCTATTAATTGTCACCCCACCAAGCGGACAGCTAACAT
GAATTGCACTTCACTGCAGCTTTAGAGATCGGTTTAGGCTGAGACATTGCGCCTGCCTTAGGTTGCTGACTTCTT
TATTTCAGAGCTCTGGAGACACCTAGTTTGAAAAATGTTATTCTGTTTTTTTGTGAGAACTTAGTAAACAAGAAA
ATACTCTTGAGTGAAATGCAATGTATTTCTTTTGTAATCAGTGCATTTGAAAATTCAAGCCAGCATATTCCTAGT
AGATGGAAGCAAAATTAAGTTGTCTTTGTAGAAAATGAAGAGCCTTTCTTCCAGCAAAAATCCCTGCTGTATGCA
ATAGCCCTGATTAACCCTCTCCCTTCTGCATGTTTCCCATATTACAGACTTGAGACTGTCCTCATTCCCATATGT
AATAGACATCCAAAGAATTTCAATTGCTTTGTTGAACTTTTACTAATGATCTTGTTTTTATTTTCTCTCTTGTTT
TTGGTTTTTCACCATTGATATTGTATTTAGAAGGTTTCAGGTGGGTGAAACCTCCTATTCCATGCGTAAGGTGCC
TCGCTGAAGGGAGCTCGAGGCCTGGATCTAGGGCAGACACACAACCTCCTCCTCCTCTTCCAGCAAGGAACGCAC
CGAAAAGTCACATGATGAGAAATATGGTAACGGGTTTGTAACTGCCACAGCAAACAATTTGCCTCCATGCCTGA
ATCTTCTGTCTTGTGGCTTCAGAAACAGCTTAAAATAATTTTATTTACAAGCAAGTTATGTAAGAGAATGTTTTA
TACTATAGCCACAATTCTGTCAAAGATAAGTAAAAGTTAATTGATATTAAAAATTATTAGAGATAATTTACTTAG
TAAAAGCTTCTAACTCTTCTTGTTGTTCATTTTTTTTCCTTTTTTCTTCTTTGTTTGGATTGCAGCATTCTGCTC
TTCTGATGATGCGCTGTGACCCTGCAGTAGCGCAAAGGCTGCGCAGCGTTAATGCGCATTGCGTGCGAATGAACC
CCTGTGAACGGTTGACTAGATGAGTAATCTGATTGACTGGCTCCCTCAGTCCTATTCTGTAGCCTTTTTGGATAA
AATTGGGTTTTAACATACCTCGAGTCCAACTAATCTCATTAAACAAATATTCTCCATGGGCCTGTCTAGTAGATT
AATGGATCTGGTTGGCCGTTTGCTGCGTCTAGGGGTGTTCTATGTAGCGCAGCAGTTCGCAGCGATTGCGCAGTG
CGATGCTGTTAGGTTGCGCAAGCGATGTTTGCGCTCGCATTACAGGGACCTCAACCTAGGTGCAATCCTGTCATG
TGAGGTTTCAGCTTCAGTCCTCCTTGGGAGACGGGGCATTGTGAGAATGTAACTTAAAGCCTGGCTTTATGATAT
CCTACTTGGCAGAAAGACATTTTTCTCCTCAGTAGCATAGTTTTGATGTTAGTGAGGAACATTGTTGAAGAGCAG
CATTTCCCAAAATGTGTTTCATAGTATTCTAATAAAATGCCCAATGAAAGAAGAGTTCCATGGTCAACTAAGTTC
AGGGAACCCTGTTACACTATTAAAGGCTTAGGGAAGTCCAGTAAAGAAACCTATTTTCCGAATTTATTTGATCAT
GAACTCCTTTTTTTTCAGCCATACCTCTTAACACCTCATAGAACACACTTCCGGAAACAGTGGGGGTAGGAAAAC
TCGGCCTCAAGTTGCGCCCTCTAGGTAGCACTTGAAAACATGACAAGGGCCCGTAGTTGTTTGGATAAGAGAACT
CCAGCATAGAGCCTTATAGCAACTGACTTCCCAGTTAAGTCCCAGTGTAAGGGTTGGTCTTTGGTTGGCAGAACT
GAACATGGTGGTTTGCACTTGGGTTCTGGTGGCGCAGGCGCAGGAGCAGCCAGCTGTGGCAGCGCATTAGTTTTG
GCGCAAGCGAGCCT**ATG**CTGCAGGGTCACTTTTGGCTGGTCAGAGAAGGAATAATGATATCACCTTCTTCCCCCC
CTCCCCCCAATCTTTTTTTTTCCCTTTACAAATTTTCCCCTTTCCCTTTACCTCCTTTCCCTCCCATCTTCTTT
CATTAACCCCTCCTAAGGCATGTTATTTGAAAGCAATTGAGACGCAACCGAACTTTGCAGTAGCTTGGAGTAATC
TTGGCTGTGTTTTCAATGCACAAGGGGAAATTTGGCTTGCAATTCATCACTTTGAAAAGGCTGTCACCCTTGACC
CAAACTTTCTGGATGCTTATATCAATTTAGGAAATGTCTTGAAAGAGGCACGCATTTTTGACAGAGCTGTGGCAG
CTTATCTTCGTGCCCTAAGTTTGAGTCCAAATCACGCAGTGGTGCACGGCAACCTGGCTTGTGTATACTATGAGC
AAGGCCTGATAGATCTGGCAATAGACACCTACAGGCGGGCTATCGAACTACAACCACATTTCCCTGATGCTTACT
GCAACCTAGCCAATGCTCTCAAAGAGAAGGGCAGTGTTGCTGAAGCAGAAGATTGTTATAATACAGCTCTCCGTC
TGTGTCCCACCCATGCAGACTCTCTGAATAACCTAGCCAATATCAAACGAGAACAGGGAAACATTGAAGAGGCAG
TTCGCTTGTATCGTAAAGCATTAGAAGTCTTCCCAGAGTTTGCTGCTGCCCATTCAAATTTAGCAAGTGTACTGC
AGCAGCAGGGAAAACTGCAGGAAGCTCTGATGCATTATAAGGAGGCTATTCGAATCAGTCCTACCTTTGCTGATG
CCTACTCTAATATGGGAAACACTCTAAAGGAGATGCAGGATGTTCAGGGAGCCTTGCAGTGTTATACGCGTGCCA
TCCAAATTAATCCTGCATTTGCAGATGCACATAGCAATCTGGCTTCCATTCATAAGGATTCAGGGAATATTCCAG
AAGCCATAGCTTCTTACCGCACGGCTCTGAAACTTAAGCCTGATTTTCCTGATGCTTATTGTAACTTGGCTCATT
GCCTGCAGATTGTCTGTGATTGGACAGACTATGATGAGCGAATGAAGAAGTTGGTCAGTATTGTGGCTGACCAGT
TAGAGAAGAATAGGTTGCCTTCTGTGCATCCTCATCATAGTATGCTATATCCTCTTTCTCATGGCTTCAGGAAGG
CTATTGCTGAGAGGCACGGCAACCTGTGCTTAGATAAGATTAATGTTCTTCATAAACCACCATATGAACATCCAA
AAGACTTGAAGCTCAGTGATGGTCGGCTGCGTGTAGGATATGTGAGTTCCGACTTTGGGAATCATCCTACTTCTC
ACCTTATGCAGTCTATTCCAGGCATGCACAATCCTGATAAATTTGAGGTGTTCTGTTATGCCCTGAGCCCAGACG
ATGGCACAAACTTCCGAGTGAAGGTGATGGCAGAAGCCAATCATTTCATTGATCTTTCTCAGATTCCATGCAATG
GAAAAGCAGCTGATCGCATCCATCAGGATGGAATTCATATCCTTGTAAATATGAATGGCTATACTAAGGGCGCTC

FIGURE 801B

GAAATGAGCTTTTTGCTCTCAGGCCAGCTCCTATTCAGGCAATGTGGCTGGGATACCCTGGGACGAGTGGTGCGC
TTTTCATGGATTATATTATCACTGATCAGGAAACTTCGCCAGCTGAAGTTGCTGAGCAGTATTCCGAGAAATTGG
CTTATATGCCCCACACTTTTTTTATTGGTGATCATGCTAATATGTTCCCTCACCTGAAGAAAAAAGCAGTCATCG
ATTTTAAGTCCAATGGGCACATTTATGACAATCGGATAGTTCTGAATGGCATCGACCTCAAAGCATTTCTTGATA
GTCTACCAGATGTGAAAATTGTCAAGATGAAGTGTCCTGATGGAGGAGACAATGCAGATAGCAGTAACACAGCTC
TTAATATGCCTGTTATTCCTATGAATACTATTGCAGAAGCAGTTATTGAAATGATTAACCGAGGACAGATTCAAA
TAACAATTAATGGATTCAGTATTAGCAATGGACTGGCAACTACTCAGATCAACAATAAGGCTGCAACTGGAGAGG
AGGTTCCCCGTACCATTATTGTAACCACCCGTTCTCAGTACGGGTTACCAGAAGATGCCATCGTATACTGTAACT
TTAATCAGTTGTATAAAATTGACCCTTCTACTTTGCAGATGTGGGCAAACATTCTGAAGCGTGTTCCCAATAGTG
TACTCTGGCTGTTGCGTTTTCCAGCAGTAGGAGAACCTAATATTCAACAGTATGCACAAACATGGGCCTGCCCC
AGAACCGTATCATTTTTTCACCTGTTGCTCCTAAAGAGGAACACGTCAGGAGAGGCCAGCTGGCTGATGTCTGCT
TGGACACTCCACTCTGTAATGGGCACACCACAGGGATGGATGTCCTCTGGGCAGGGACCCCCATGGTGACTATGC
CAGGAGAGACTCTTGCTTCTCGAGTTGCAGCATCCCAGCTCACTTGCTTAGGTTGTCTTGAGCTTATTGCTAAAA
ACAGACAAGAATATGAAGACATAGCTGTGAAGCTGGGAACTGATCTAGAATACCTGAAGAAAGTTCGTGGCAAAG
TCTGGAAGCAAAGAATATCTAGCCCTCTGTTCAACACCAAACAATACACAATGGAACTAGAGCGGCTCTATCTAC
AGATGTGGGAGCATTATGCAGCTGGCAACAAACCTGACCACATGATTAAGCCTGTTGAAGTCACTGAGTCAGCA**T**
AAATAAAGACTGCACAGGAGAATTACCCCTAAAAAAAAAAAAAAAAAAAAGGGCGGCCGAGGGAACTAGATAACATA
CTTCTTACTTGTCTGTACAGTACCTTGTTGCAGATGGGTGATATATAATGGTAATAGAATAGCACAGCCAGACTT
GCTTCCTGCATGGTAGGGAGAGACACAAAGATGGGAAACTGCTTTTCCACAAGGAATCTCCGTAGAATTTTGCG
GCGACCAGATGGTGCATAGGTCTGGAAGGTCTGATCTCCCTTGGTCTTCCATGGGATGGTTAGTGTGGAGGGGAG
ATATAGATTGTCCGGCCGCTTTGTGATTCCATGGATTGATTCAGTCTTCTGGATTTTTTTTCTTTATATTTTGG
GTACTGGAGCTTTTAAAAATGTTTGGTTTCAGGTATTTTTATTCATGTGAAGTGTATATGATTCTCTTGAGATAA
GGTTTTAAGCTAAAATGTTACTCCCTGTTTTAGTTTCTGAACTCTGACAGATTGACAGGGACTTTGCTGGTGTAG
TCTTTTTATAGGTTTTATAAACCACTTGAGCCTATATCAGTCGTTTTAGTGTCTGACCTAATATTTGGAGCTATC
AGTGCTTTGTTGATTTAGATGATGACTCAAGATTTTTTCTGGTCCATTTCCCATTTCCTTTTCTTCCCTGACCCC
CATACCCTCACCCTTAAAATTCTCCTGTAACTCAACTAACAAAATCAAGCCTGATTCAAAACATCCTAGGGTGTT
TTAAACACACCATCTGGTGCCAAATGAAGATTTTTAGGAGTGATTACTAATTATCAAGGGCACAGTTGTGGTACT
GTCATTGATAATAATATAGTTTTTTTTTTTTTCCTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AATAAAAAAAAAAAAAAAAAAAAAAAAAAAAC

FIGURE 802

MLQGHFWLVREGIMISPSSPPPPNLFFFPLQIFPFPFTSFPSHLLSLTPPKACYLKAIETQPNFAVAWSNLGCVF
NAQGEIWLAIHHFEKAVTLDPNFLDAYINLGNVLKEARIFDRAVAAYLRALSLSPNHAVVHGNLACVYYEQGLID
LAIDTYRRAIELQPHFPDAYCNLANALKEKGSVAEAEDCYNTALRLCPTHADSLNNLANIKREQGNIEEAVRLYR
KALEVFPEFAAAHSNLASVLQQQGKLQEALMHYKEAIRISPTFADAYSNMGNTLKEMQDVQGALQCYTRAIQINP
AFADAHSNLASIHKDSGNIPEAIASYRTALKLKPDFPDAYCNLAHCLQIVCDWTDYDERMKKLVSIVADQLEKNR
LPSVHPHHSMLYPLSHGFRKAIAERHGNLCLDKINVLHKPPYEHPKDLKLSDGRLRVGYVSSDFGNHPTSHLMQS
IPGMHNPDKFEVFCYALSPDDGTNFRVKVMAEANHFIDLSQIPCNGKAADRIHQDGIHILVNMNGYTKGARNELF
ALRPAPIQAMWLGYPGTSGALFMDYIITDQETSPAEVAEQYSEKLAYMPHTFFIGDHANMFPHLKKKAVIDFKSN
GHIYDNRIVLNGIDLKAFLDSLPDVKIVKMKCPDGGDNADSSNTALNMPVIPMNTIAEAVIEMINRGQIQITING
FSISNGLATTQINNKAATGEEVPRTIIVTTRSQYGLPEDAIVYCNFNQLYKIDPSTLQMWANILKRVPNSVLWLL
RFPAVGEPNIQQYAQNMGLPQNRIIFSPVAPKEEHVRRGQLADVCLDTPLCNGHTTGMDVLWAGTPMVTMPGETL
ASRVAASQLTCLGCLELIAKNRQEYEDIAVKLGTDLEYLKKVRGKVWKQRISSPLFNTKQYTMELERLYLQMWEH
YAAGNKPDHMIKPVEVTESA

FIGURE 803

GGAGGAGGAAGCAAGCGAGGGGGCTGGTTCCTGAGCTTCGCAATTCCTGTGTCGCCTTCTGGGCTCCCAGCCTGC
CGGGTCGCATGATCCCTCCGGCCGGAGCTGGTTTTTTTGCCAGCCACCGCGAGGCCGGCTGAGTTACCGGCATCC
CCGCAGCCACCTCCTCTCCCGACCTGTGATACAAAAGATCTTCCGGGGGGCTGCACCTGCCTGCCTTTGCCTAAGG
CGGATTTGAATCTCTTTCTCTCCCTTCAGAATCTTATCTTGGCTTTGGATCTTAGAAGAGAATCACTAACCAGAG
ACGAGACTCAGTGAGTGAGCAGGTGTTTTGGACAATGGACTGGTTGAGCCCATCCCTATTATAAAA**ATG**TCTCAG
AGCAACCGGGAGCTGGTGGTTGACTTTCTCTCCTACAAGCTTTCCCAGAAAGGATACAGCTGGAGTCAGTTTAGT
GATGTGGAAGAGAACAGGACTGAGGCCCCAGAAGGGACTGAATCGGAGATGGAGACCCCCAGTGCCATCAATGGC
AACCCATCCTGGCACCTGGCAGACAGCCCCGCGGTGAATGGAGCCACTGGCCACAGCAGCAGTTTGGATGCCCGG
GAGGTGATCCCCATGGCAGCAGTAAAGCAAGCGCTGAGGGAGGCAGGCGACGAGTTTGAACTGCGGTACCGGCGG
GCATTCAGTGACCTGACATCCCAGCTCCACATCACCCCAGGGACAGCATATCAGAGCTTTGAACAGGTAGTGAAT
GAACTCTTCCGGGATGGGGTAAACTGGGGTCGCATTGTGGCCTTTTTCTCCTTCGGCGGGGCACTGTGCGTGGAA
AGCGTAGACAAGGAGATGCAGGTATTGGTGAGTCGGATCGCAGCTTGGATGGCCACTTACCTGAATGACCACCTA
GAGCCTTGGATCCAGGAGAACGGCGGCTGGGATACTTTTGTGGAACTCTATGGGAACAATGCAGCAGCCGAGAGC
CGAAAGGGCCAGGAACGCTTCAACCGCTGGTTCCTGACGGGCATGACTGTGGCCGGCGTGGTTCTGCTGGGCTCA
CTCTTCAGTCGGAAA**TGA**CCAGACACTGACCATCCACTCTACCCTCCCACCCCCTTCTCTGCTCCACCACATCCT
CCGTCCAGCCGCCATTGCCACCAGGAGAACCACTACATGCAGCCCATGCCCACCTGCCCATCACAGGGTTGGGCC
CAGATCTGGTCCCTTGCAGCTAGTTTTCTAGAATTTATCACACTTCTGTGAGACCCCCACACCTCAGTTCCCTTG
GCCTCAGAATTCACAAAATTTCCACAAAATCTGTCCAAAGGAGGCTGGCAGGTATGGAAGGGTTTGTGGCTGGGG
GCAGGAGGGCCCTACCTGATTGGTGCAACCCTTACCCCTTAGCCTCCCTGAAAATGTTTTTCTGCCAGGGAGCTT
GAAAGTTTTCAGAACCTCTTCCCCAGAAAGGAGACTAGATTGCCTTTGTTTTGATGTTTGTGGCCTCAGAATTGA
TCATTTTCCCCCCACTCTCCCCACACTAACCTGGGTTCCCTTTCCTTCCATCCCTACCCCCTAAGAGCCATTTAG
GGGCCACTTTTGACTAGGGATTCAGGCTGCTTGGGATAAAGATGCAAGGACCAGGACTCCCTCCTCACCTCTGGA
CTGGCTAGAGTCCTCACTCCCAGTCCAAATGTCCTCCAGAAGCCTCTGGCTAGAGGCCAGCCCCACCCAGGAGGG
AGGGGGCTATAGCTACAGGAAGCACCCCATGCCAAAGCTAGGGTGGCCCTTGCAGTTCAGCACCACCCTAGTCCC
TTCCCCTCCCTGGCTCCCATGACCATACTGAGGGACCAACTGGGCCCAAGACAGATGCCCCAGAGCTGTTTATGG
CCTCAGCTGCCTCACTTCCTACAAGAGCAGCCTGTGGCATCTTTGCCTTGGGCTGCTCCTCATGGTGGGTTCAGG
GGACTCAGCCCTGAGGTGAAAGGGAGCTATCAGGAACAGCTATGGGAGCCCCAGGGTCTTCCCTACCTCAGGCAG
GAAGGGCAGGAAGGAGAGCCTGCTGCATGGGGTGGGGTAGGGCTGACTAGAAGGGCCAGTCCTGCCTGGCCAGGC
AGATCTGTGCCCCATGCCTGTCCAGCCTGGGCAGCCAGGCTGCCAAGGCCAGAGTGGCCTGGCCAGGAGCTCTTC
AGGCCTCCCTCTCTCTTCTGCTCCACCCTTGGCCTGTCTCATCCCCAGGGGTCCCAGCCACCCCGGGCTCTCTGC
TGTACATATTTGAGACTAGTTTTTATTCCTTGTGAAGATGATATACTATTTTTGTTAAGCGTGTCTGTATTTATG
TGTGAGGAGCTGCTGGCTTGCAGTGCGCGTGCACGTGGAGAGCTGGTGCCCGGAGATTGGACGGCCTGATGCTCC
CTCCCCTGCCCTGGTCCAGGGAAGCTGGCCGAGGGTCCTGGCTCCTGAGGGGCATCTGCCCCTCCCCCAACCCCC
ACCCCACACTTGTTCCAGCTCTTTGAAATAGTCTGTGTGAAGGTGAAAGTGCAGTTCAGTAATAAACTGTGTTTA
CTCAGTGAAAAAAAAAAAAAAAAAAA

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FIGURE 804

MSQSNRELVVDFLSYKLSQKGYSWSQFSDVEENRTEAPEGTESEMETPSAINGNPSWHLADSPAVNGATGHSSSL
DAREVIPMAAVKQALREAGDEFELRYRRAFSDLTSQLHITPGTAYQSFEQVVNELFRDGVNWGRIVAFFSFGGAL
CVESVDKEMQVLVSRIAAWMATYLNDHLEPWIQENGGWDTFVELYGNNAAAESRKGQERFNRWFLTGMTVAGVVL
LGSLFSRK

FIGURE 805

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GGCACGAGGCGTCCCGGCGCCACTCGGCCCAGGGCAGGGACCCCGCCACGGCCGGGACCGCCCGGCCCGGCCCCA
GCCCGCGCCTCTCCGCGCCGCCCCGCGCTCCGCACCGCGCCCTCTCCGCGTCCCCGCCCCGCGCGGCCGGACCGGG
CAGCCAGAAAAATCATTTTTCTTCTCTGGGAAGGTGAACATTTGTAGCATTGATTTCCCGGATCTGGTAACATGG
CAAAAGATGCCGGTCTAATTGAAGCCAACGGAGAACTCAAGGTCTTCATAGACCAGAACCTTAGTCCCGGGAAAG
GCGTGGTGTCCCTCGTGGCCGTTCACCCCTCCACCGTCAACCCGCTCGGGAAGCAGCTCTTGCCAAAAACCTTTG
GACAGTCCAATGTCAACATTGCCCAGCAAGTGGTAATTGGTACGCCTCAGAGACCGGCAGCGTCAAACACCCTGG
TGGTAGGAAGCCCACACACCCCCAGCACTCACTTTGCCTCTCAGAACCAGCCTTCCGACTCCTCACCTTGGTCTG
CCGGGAAGCGCAACAGGAAAGGAGAGAAGAATGGCAAGGGCCTACGGCATTTCTCCATGAAGGTCTGCGAGAAGG
TGCAGAGGAAAGGGACCACTTCCTACAACGAAGTGGCAGACGAGCTGGTTGCGGAGTTCAGTGCTGCCGACAACC
ACATCTTACCAAACGAGTCAGCTTATGACCAGAAAAACATAAGACGGCGCGTCTACGATGCCTTAAACGTGCTAA
TGGCCATGAACATCATCTCCAAGGAGAAGAAGGAGATCAAGTGGATTGGTCTGCCCACCAACTCGGCTCAGGAAT
GTCAGAACTTAGAGGTGGAAAGACAGAGGAGACTTGAAAGAATAAAACAGAAACAGTCTCAACTTCAAGAACTTA
TTCTACAGCAAATTGCCTTCAAGAACCTGGTGCAGAGAAACCGGCATGCGGAGCAGCAGGCCAGCCGGCCACCGC
CACCCAACTCAGTCATCCACCTGCCCTTCATCATCGTCAACACCAGCAAGAAGACGGTCATCGACTGCAGCATCT
CCAATGACAAATTTGAGTATCTGTTTAATTTTGACAACACATTTGAAATCCACGATGACATAGAAGTGCTGAAGC
GGATGGGCATGGCTTGCGGGCTGGAGTCGGGGAGCTGCTCTGCCGAAGACCTTAAAATGGCCAGAAGTCTGGTCC
CCAAGGCTCTGGAGCCATACGTGACAGAAATGGCTCAGGGAACTGTTGGAGGCGTGTTCATCACGACGGCAGGTT
CCACGTCTAACGGCACAAGGTTCTCTGCCAGTGACCTGACCAACGGTGCAGATGGGATGCTGGCCACAAGCTCCA
ATGGGTCTCAGTACAGCGGCTCCAGGGTGGAGACTCCGGTGTCCTACGTCGGGGAGGACGACGAGGAGGACGATG
ACTTCAACGAGAATGACGAGGACGACTGACGTCCTCCCCACTTCAGATTCGGCTTCAGGAAAACGTTTAGCGAAA
AGAAACTTTTTTTTTAATGTGGGTTTTCTGTTTCCTTTTGGCCTACTCCCAAGAAGATATTGGTAAGCTATTGAA
TTTAGATATGCACCTCTGATAAGCAAGGATTGTTTCCCGTAGGATTAGGACGTGCTGTGGATGTGTGTTTTGATA
CCAGTGTGCTGATGCAGAGCGTTTATTTAGTTGTTAGGATTTTGTGTTTTCATTTGCTATTTTTCTTTAAGTGCA
GAGTTCATTTTTGCCCCTGAAAAGTTTTTGCTGAGTTTGCTGAAGAAATTGTATTTCAACCACATCCATGAAAAT
AAAACACCTCCTGTTGTGGATGGTGAGCCCCTGATGCCGCTTATTTGCCGTGAGTTTGGACGGCACCCCTGCTGG
CGGATAGCAAGACTCTGTGGAGTTTGTTCAGTGGTACGGTGTCCAAGCAAACAGCAGAATGCAACTTTCTAAACA
GCCCCAAGCAAACAGCAGAATTCAACTTTTTAAACAATAAACACCATCAACCTTATTGACTTTATTGTCCCTTAA
ATTATATTGACTGTTGTGATTCCATCAAGTTTGTACACTCTTTTCTCTCCCTGTTTTGCAGCAACAAATTGCGAA
GTGCTTTTGTTTGTTTGTTTTCGTTTGGTTAAAGCTTATTGCCATGCTGGTGCGGCTATGGAGACTGTCTGGAAG
GCTTGGAATGGTTTATTGCTTATGGTAAAATTTGCCTGATTTCTTACAGGCAGCGTTTGGAAACCTTTTATTATA
TAGTTGTTTACATACTTATAAGTCTATCATTTAAAGACATGTACTGAAACAAATGTATTTGTTTCATAAGCATCT
TCCTGTAATCTATTATAAAATTGAAATTAAATATAGAGAATGTTTAACAAAAAAAAAAAAAAAAAAAA
```

FIGURE 806

MAKDAGLIEANGELKVFIDQNLSPGKGVVSLVAVHPSTVNPLGKQLLPKTFGQSNVNIAQQVVIGTPQRPAASNT
LVVGSPHTPSTHFASQNQPSDSSPWSAGKRNRKGEKNGKGLRHFSMKVCEKVQRKGTTSYNEVADELVAEFSAAD
NHILPNESAYDQKNIRRRVYDALNVLMAMNIISKEKKEIKWIGLPTNSAQECQNLEVERQRRLERIKQKQSQLQE
LILQQIAFKNLVQRNRHAEQQASRPPPPNSVIHLPFIIVNTSKKTVIDCSISNDKFEYLFNFDNTFEIHDDIEVL
KRMGMACGLESGSCSAEDLKMARSLVPKALEPYVTEMAQGTVGGVFITTAGSTSNGTRFSASDLTNGADGMLATS
SNGSQYSGSRVETPVSYVGEDDEEDDDFNENDEDD

FIGURE 807

ACTTATACATCTGTAAAGGTGGTTTCAGGGACCTTTCTGAACTTAGCCCGTATCTCACTGGTGATCCCACTTCTG
GGTATTTGCAAATCACTTTATTAGGTTTTTAAAAGTATTGTTGCAGGCATGCGAAGGGGCCGATATACTTTTGCC
ATGTCCAGAGTGTATTCAGGTCTTGTAATGATCATATGGGTGTAATATTGAGTAACAGGCAAATGTGGGCAGAAA
ATATCAAATGTGGTTTTCAGCTAAGAAGTCTGGTTGCTCTTAATTTTCAGTTACTCTCCATTGCATAGAATAAAG
CCCCGAAGAAACGAAGAATAAGATCATGGGGAAACTTGGCTTCCATGTTAAACCGTGTAATACCAGGTGTTAGAA
TAGTAGTAAAGGACTTGTTTCTTTCACATCTATATACACTCAAAAGACCTCATCGATCTTGGAAAAACATTGTTT
CGAAGACAATGTGTATGACTGATTTGGTTATATGAAGAAATTATTTCTAGGATTTCCTGGTAATTCTGTGATAAA
CAGTAATACAAACTGGAATTTTTACAGGTCACTATAGTAGAGGTTTTAGTTTGATTTTTGCTTTGCCTGTCATGC
TCTCTCTGCCTTATAATTCTTTGTGGTGTAATTAAAAAACGAACACTNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
NNNNNNNNNNNTGCAAACACATTTTAATTGACAACACTAGGGCTGTTGTACAAAATAGTAATGATAGCCATGGAAG
TTTTACCTTATTCTGTGAGAAGTGTTCTTAAACTTATTAAGTGTCTAAACTAAGGTTTAGTGCTTTTTTAAAGGA
AAGTTGTCCCAGGATTCATCCTAAAGAAAGCAAAAGTTAATTCAACTGATCCACCAATGGAATTAGATGGGTAGA
GTTGGGTTCTTGAGTTTTACCACCACTTAGTTCCCACTGAATTTTGTAACTTCCTGTGTTTGCATCCTCTGTTCC
TATTCTGCCCTTGCTCTGTGTCATCTCAGTCATTTGACTTAGAAAGTGCCCTTCAAAAGGACCCTGTTCACTGCT
GCACTTTTCAATGAATTAAAATTTATTTCTGTTCTAGTGGGAATGTGTCCTTTGTTTTAGTTCACAAGTAGTAAT
TTTGACAAG**ATG**CTTTCTTCTGATGCAGTTTGTTTTAATCACTCACCTAGTACTAGAAATGGCTTTCTAGTCAGA
TCCTATAGTCTCTACCTGTATAGCTCTTACATACA

FIGURE 808

MLSSDAVCFNHSPSTRNGFLVRSYSLYLYSSY

FIGURE 809A

CCGTCCCGGGGCGGACGGGCGCGGGCGGGAGG**ATG**GAGCTGAACTCCCTGCTGATCCTGCTGGAGGCGGCCGAGT
ACCTGGAGCGCAGGGATCGAGAGGCCGAGCACGGCTACGCCTCGGTGCTGCCCTTCGACGGCGACTTCGCCAGGG
AGAAAACAAAGGCGGCCGGCCTGGTGCGCAAGGCCCCGAACAACAGGTCTTCACACAACGAGCTAGAAAAGCACA
GACGAGCCAAACTCAGGCTGTACCTTGAGCAGCTCAAGCAACTGGTGCCCCTGGGCCCCGACAGCACCCGCCACA
CCACGCTGAGCCTCCTGAAGCGGGCCAAGGTGCACATCAAGAAACTGGAGGAGCAGGACCGCCGGGCACTGAGCA
TCAAGGAGCAGCTGCAGCAGGAGCATCGTTTCCTGAAGCGGCGCCTGGAGCAGCTGTCGGTGCAGAGCGTGGAGC
GCGTGCGCACAGATAGCACGGGCTCTGCTGTCTCCACGGACGACTCAGAGCAAGAAGTGGACATAGAGGGCATGG
AGTTTGGCCCTGGTGAGCTGGACAGTGTTGGCAGCAGCAGTGACGCGGACGACCACTACAGCCTGCAGAGTGGCA
CCGGCGGCGACAGTGGCTTCGGGCCCCACTGCCGGCGGCTGGGCCGCCCCGCCCTCTCG**TAG**GCCCGTGCCCTCT
GCTCCTTGGCCTGCCTGCCCGCCAGCCACGCGTGTCAGCCCTCCAGTTCTCCTTCAGTTGACGCCAGCCTCTCCA
CAGGCCCACTGCTGTGCCATTCTGGAAGCTCCAGCTGCTGCTGGGCTGCCTGGCACTGCCCGCTTGCCGGTCAGG
GCCTGCCGAGCTGCCTGCCCCTTCCAGCTGGGCAGAGTCCCCTGCAAGGAGGCAGGGCCCAGCTTCCACATCCGG
AGCCCTGGTCAGCATAGCCGCCCACGGTCTGTTCTCAGATTCCTAATCATTCCAGAAGTATTAAACGTCATTGCT
GCAAACCTCGGCAGGTGCCGTGTGAGGGGCTTAATGACCACCACAGGGAGCTCAGACCCCAACCCTGGATCCCAG
GAGAAAGGAGTGGACCGAGGAAGGAAGGAAGGCAAGGCTGTCTGTCCATCCGTCCGTCTGTCCACCTACCTGTCA
GTCCACATAGGCTCCTGGCGTGGACAAGGGGTCTGTGAAGGGCGGGAACTGGGTGAGCACCTGGGGCAGGTGGGT
GGTTAAGGTCCTTCCCACTTCGCAGGTGTCAGAACCTAGGGCTGGGCTCTCGGGGCCAGGCAGGCCAGCCCAGCC
CACGCCGAGCTGGGCAGCGTCTGCTCTGGTAGGACTGTCAGACGCACACGCGCACGCACCTAGACACACCCACTC
ATGTACATGCTCACACATGCAGACACACCTGGGCGTCCCGAGGTCACATGTTCTGGGGATGATGGCCTTCAGGGG
TCATCTGGCAAACAGCCCCTGGGCTGTGCCTGGATCCCCCTCTAGCTCCTGCTCACCCACGCCCACCCAGTAGTC
CTGCCTGTCTGCACAGGAGAGGGGCTTCTCTTCCTGGCTGGGGCTGGGGTGAACTGGAGGCTGGTTAAGTTGCAG
CCGCTGGGTCCTCGGGGGCTTACTCATCTCCCTTTTTTAAACAAAAAGCAAAAAAGTAAAATGCTGCACTGCCCA
GCAGCCCGGTTAGGGCTCCTGGAGCCACCTTAGGAAAGGGCTTCTCATGAGCTCTGCTGCGGCAGCTTCAGCTGG
CAGAGAGGCTTTCCCAGAAAAAAAAAAAAAAACCATTTTTAAAAAGAAGAAAGCCTAAAGACTCTCGGCCTAGGGA
CGTCCGTGTGTGCCGCCTCTGTTTCCTGTACCAGATTTTTGTATTCTATTTTCCTAGCTGTTGTTGCGTCCTTGT
TTGCTGAGGGGTGGGAGCCACCCAGCGTCTCAGGGACCTGTCCCTCCGTCACGTCGTCAAAGTGTGCCTTGTGTC
TTGTGTCAGGCCTTGCCCTTCCCACCAGCATGTCCCTCGTGGCTCAGGGTGCCCCAGGCCTGCCCAGCTAGTGCT
GTCCTCCCATCTCCTGTGGGCAGCCCCTCCCGGCAGCCAGGGCTTCCTGGAGGCGATGCAGCCAGGCCCCTGTGG
GTGGCACGGAGGGGCTGTGACCTGGTCCCCAGTGTTGCCCTCCCCAGTGGCTGGCAGGGGCCTGCTTGCTCACTA
GAGAGATGGATTCTCACCTGTCACCTGACTCGAGCCCCCTGCTTCCTGGCCTAGGCGAGGGTTCCAGGTTTCAGA
CACTGGCAGCCAATGAAGACTGTGCTCGCTGGGTGGTGCAGGCCTGGCACCAGGAGGCTTGCACCCGCCTTTCCT
TCCTGACGTCCTCTGTCCTTGGGGCTGGCCCATAGCAGTGCCTGCCGTGCCTCTGGTACATCTGTAGCCAATTCC
CATATCATGGGGAAAATTCGTGTCTATTTTCAGTCGTACGCATAGACGCCCCAGGATGGGGGGCCCACTGTGGCG
GAAGGGGGTCCCTGGAAACAACTCTGGCACAGAACCTGCCCTGCAGGCTGTAGGGGGCATGGTGCCTGGAGCTGA
GGGGCATCCGAACGCGTTGCGGGTGGTTGTGAGGAGGCCTGTCTGCATCTCCTTCCGGCCCCACTGGGGTCCAGG
GGTGCCCAGAAAGGAGCTTCCCCTGCCTGCCTGAGTCTGTCCCCCCAGGCTTCATTTCAAACACCGTGGCACCTC
CGAGCAAGGCGGGCCGTGTGTAAAAGCTTGCTTCCCCAGCCAGCACTGCAGGGCCCTGAGGTGGTCGTGTCCCTG
CCCTCAATTCTTGAAGCACCAGCTCCCTGCCCCACCTCCAGTGCCTGAGGCAGCTAGGGGCTTCTGCTCTCATC
TCTGACCAGCAGAATCCACCCGGTGACCAGTGGTGGCCCCTCAGCCCACCCTCCCGGCAGCTCAGCCTGTGGCTC
TTGAGGCCGTGGTTCCCACGTGGACTGGGAGGCAGTCTCAGCCACCCGGGGTGCTGTTCAGCTGCCCCTCCCTGC
CATCAGCAGGTGGGTGAGGGGTTGCCCACTGGGTGGGGGCCCGTGCTAGGAGTCACCACATGCTCCAACCTCCCA
CTGCTCCCTGTCAGGGGCCCAGGCTGCCATCACTGGAGGCTGCAGGGACCAAGAGGCCATCACCGTGTCTATAGA
GAGCAGACAGAAGCAGAACAGAGCCCGGGGCTCCTGAGCCTCTGCGTGTGCCCTCCCAGCCCACACCAGTGCTCT
CGGCCACTGAGCACCCAGACTCAGGCTTGGGTTCCCCAGCCTTATTGGAAGGCAGCTCCCGCATACCAGGATAAC
CCCCGCAAACCACATAGCAGACCCCCGCCATCCTCGCAGAGTGGGAGAGGCTGCAGCAAGGCTTTGCCTCTGCAG
ACCCCATCTTAGTGGCACGGTGCTTGGGCCTGTGTCCCCGGGTGGTGGAACCCTGTACCGGTCTGTGGCCCTAGG
GTCCCTGCTCTGTCTGCCCCGGCCCGTGCTGTCCGCTGGGTGAGGCAGGCTCCCCCGTGCCCTGCCTCCCTCTGT
CAGGGAACCTGGGACCCCCTCCCCACTGCCTGCACAGAGGACCCTGACCCTCGGCCAGCAGGGTGGCCCCAGGTC

FIGURE 809B

CATGTTGGGCACTAGGGCAGGTTCCGTGCCAGAGTCGGGGGCCACACGAGGGCCTGGTGCCGGTGAGGGGGGCGT
GCGCTAGAGGGGGAAAGGGGCCCCCGGCCACCTGTCCACCGTGTGGGCCGTGCTGTGTCCTTATGTCATTGTAAT
ATAAATACAGATTTTTATATCTC

FIGURE 810

MELNSLLILLEAAEYLERRDREAEHGYASVLPFDGDFAREKTKAAGLVRKAPNNRSSHNELEKHRRAKLRLYLEQ
LKQLVPLGPDSTRHTTLSLLKRAKVHIKKLEEQDRRALSIKEQLQQEHRFLKRRLEQLSVQSVERVRTDSTGSAV
STDDSEQEVDIEGMEFGPGELDSVGSSSDADDHYSLQSGTGGDSGFGPHCRRLGRPALS

FIGURE 811

CGCGGGCGGGAGG**ATG**GAGCTGAACTCCCTGCTGATCCTGCTGGAGGCGGCCGAGTACCTGGAGCGCAGGGATCG
AGAGGCCGAGCACGGCTACGCCTCGGTGCTGCCCTTCGACGGCGACTTCGCCAGGGAGAAAACAAAGGCGGCCGG
CCTGGTGCGCAAGGCCCCGAACAACAGGTCTTCACACAACGAGCTAGAAAAGCACAGACGAGCCAAACTCAGGCT
GTACCTTGAGCAGCTCAAGCAACTGGTGCCCCTGGGCCCCGACAGCACCCGCCACACCACGCTGAGCCTCCTGAA
GCGGGCCAAGGTGCACATCAAGAAACTGGAGGAGCAGGACCGCCGGGCACTGAGCATCAAGGAGCAGCTGCAGCA
GGAGCATCGTTTCCTGAAGCGGCGCCTGGAGCAGCTGTCGGTGCAGAGCGTGGAGCGCGTGCGCACAGATAGCAC
GGGCTCTGCTGTCTCCACGGACGACTCAGAGCAAGAAGTGGACATAGAGGGCATGGAGTTTGGCCCTGGTGAGCT
GGACAGTGTTGGCAGCAGCAGTGACGCGGACGACCACTACAGCCTGCAGAGTGGCACCGGCGGCGACAGTGGCTT
CGGGCCCCACTGCCGGCGGCTGGGCCGCCCCGCCCTCTCG**TAG**GCCCGTGCCCTCTGCTCCTTGGCCTGCCTGCC
CGCCAGCCACGCGTGTCAGCCCTCCAGTTCTCCTTCAGTTGACGCCAGCCTCTCCACAGGCCCACTGCTGTGCCA
TTCTGGAAGCTCCAGCTGCTGCTGGGCTGCCTGGCACTGCCCGCTTGCCGGTCAGGGCCTGCCGAGCTGCCTGCC
CCTTCCAGCTGGGCAGAGTCCCCTGCAAGGAGGCAGGGCCCAGCTTCCACATCC

FIGURE 812

MELNSLLILLEAAEYLERRDREAEHGYASVLPFDGDFAREKTKAAGLVRKAPNNRSSHNELEKHRRAKLRLYLEQ
LKQLVPLGPDSTRHTTLSLLKRAKVHIKKLEEQDRRALSIKEQLQQEHRFLKRRLEQLSVQSVERVRTDSTGSAV
STDDSEQEVDIEGMEFGPGELDSVGSSSDADDHYSLQSGTGGDSGFGPHCRRLGRPALS

FIGURE 813A

GTTGGAGCGGCGCTGCTCGGCCGCGGACACACGAGGGACGCGCCCGAGGAGCTGCAGGTGGCAGCCCAGGCGGTC
CGAACCCGTCGGCCGGCCGAGCCTGGAGTATTGCCTAAGTGTAATCTTGAAC**ATG**GGCGGTGCTGTGAGTGCTGG
TGAAGACAATGAAGAGCTGATAGATAATTTGAAAGAAGCACAGTATATCCGGACTGAGCTGGTAGAGCAGGCTTT
CAGAGCTATCGATCGTGCAGACTATTATCTTGAAGAATTTAAAGAAAATGCTTATAAAGACTTGGCATGGAAGCA
TGGAAACATTCACCTCTCAGCCCCGTGCATCTACTCGGAGGTGATGGAAGCCCTAGATCTGCAGCCTGGACTCTC
GTTTCTGAACCTGGGCAGTGGCACTGGGTATCTCAGCTCCATGGTGGGCCTCATTCTAGGTCCTTTTGGTGTGAA
CCATGGGGTGGAACTTCACTCAGATGTGATAGAGTATGCAAAGCAGAAACTGGACTTCTTCATCAGAACAAGTGA
TAGTTTTGACAAGTTTGACTTCTGTGAACCTTCCTTTGTTACTGGGAATTGCCTGGAGATTTCTCCGGATTGTTC
TCAGTATGATCGTGTATACTGTGGGGCTGGCGTGCAGAAAGAGCATGAAGAGTACATGAAGAATCTTCTCAAAGT
GGGAGGGATCCTTGTCATGCCACTGGAAGAGAAGTTGACTAAGATAACACGCACAGGTCCTTCAGCTTGGGAAAC
CAAAAAGATTCTTGCTGTTTCTTTTGCTCCTCTGATCCAGCCCTGCCATTCAGAGTCAGGAAAATCAAGACTTGT
CCAGTTACCACCAGTGGCAGTTCGCAGCCTCCAGGACTTGGCTCGCATCGCCATCCGGGGCACCATTAAAAAGAT
TATTCATCAGGAAACTGTGAGCAAAAACGGAAACGGACTAAAGAACACCCCCAGGTTTAAACGAAGGAGAGTTCG
CCGCCGTCGAATGGAAACGATTGTCTTTTTGGACAAAGAAGTCTTTGCCAGTCGGATTTCCAACCCCTCAGATGA
CAACAGCTGTGAAGACTTGGAAGAGGAACGGAGGGAAGAAGAAGAGAAGACCCCGCCGGAAACAAAGCCAGACCC
CCCAGTGAACTTCCTACGCCAGAAGGTCCTGAGCCTCCCTCTGCCAGATCCCCTGAAATACTACTTGCTTTATTA
CAGAGAAAAA**TAA**GTCTCCTGTTTGAAAGGGGGAAATAGGAAGAGCAGATTGCTGAGTGTGAAGTTCGTGCTGCC
TGTGTGCTGTTGAAGGGTCACCTGGAGGCAGACGTTGTGGGGAAGGGAACTGCTGGGCTCATCCACACCATGGTT
TTCTTCTAGTTCCTGATTGACCTCTAAAATTCTATTCAGTTGTATGATTTGTTTACATAGTTCCACAAGACCTTC
ATTGCATAGAAGATTGTTTTCCCAAAGTGGAGAGAATCTTCATAGAGAAAAAGAGAAGGCTGTTTCTTTTTCGGC
TCTGACGAAACACTGAAGTCTGCGTAAGAGAGACTGTTTGATGACCGTCCCTCATGCAACATGCACGGTACTCAC
TAAAAATGAAAACTGAAGTGGAAACTAACCTGTGTTGCTTATAAAGTGTGAAAGCACAAGCTTATAAATGTATAA
AATCTTTTCTGGGTGTGACGCACCTGCGTCCAAGTTTGAATTTTTATGATATGTACCACTTAATTACTGGCACTG
AGTATCACTGAATTTCTTAGTTTTCTAGTGGGGAAACATTATTGAGAAGCCCTCCCTTATTTAAGTAAGTTGAT
TAAATCTTATGTGAGTTGCCAGTTGTAATTTTTCAAAGGAAAAATTTTGATGGGGTGGAGGAATGAATTGCCAGA
TAATCTTTCTGGAATTCCGAGAGAATTCCAAAGAGGGTTTTTTTTTTTTTTTTTTTAGGACATCTTTTGATACCT
TTAAAAGAACCACTGTCAAGTAATCCTTAAAAAAATATCTTGGAAAAGGAAACAGATTTTTTCCTGTGTGTAAGC
AATAAGTGAAGTTACATTTGCCCTAACCCTAGGGATGATTCTTTACCCAGTTTTAAAGCCCATCATGGTATTCTA
AGGTGTTGACACCCTCCATCCTCAGAGCAGGTCGAAAATATTAAATAGACTGGGGACTCTATGATGGGCAGCCTG
TGCTTTTTGACTTCAGTTTGCTATTTTTCTGTGATCACATTAGTACTGATTCATAGATTCTATCTTTTATAATTC
TGGAGAAAAAGATTTGTTAGTTTTGTAATTTTTTTGTAAGACCAAATGTATGTATTTTAGTAGCTCCATTGCATG
AGAAGAGTGTAACTCACACTGACTTGTGATATCAGCCTTCTCTGGGCCTTGTGTGTGGAGAGCTTTCTATCTTAC
CAAGTGGTAGGGCTAAAAGAACAACAGCCTTTTGGTAGTCACATAGCAGAATGATCAGAGTTACATTGCTTATT
CCAAAACATTGGTTCTTTTTAAAACATTTTTTTTTACCCAAAGAAAAGAATAATAGAAATTACTAACAATAAATA
TAAATTCAGAGTGTTGATATAGGATTCAGTATCCAGAGTTTATTTTTAATCTTAATCCTCAGCTTCTTGGGAGTT
GCTGGGCTTCAGTGTCTCTGTGGTTTCACCAGCTTAGCTTGAGCTCTGGTTATTTGGATCTTTTCTGCTTTTTT
TAAGTAACTGAGTCATTTTTACCACACAGTCCAGTTTGCATGTATAGCTAGGAAACATGTATTGCTCTAGATTGG
GCAGTTTAAGTCATTTTAAAGAAAGTTAGTTCATAGTTGTTGCCTTTTAACTCATAGTCAAGCTTCAGTCTTTCA
AAGAGAAATGTGTGATTTTCATTTACTTGCTGATATTTTGTAGTTTGGAGATCCTTGTGGGCATTATTCTAACTG
ATACGTAGACACTTACTTGGAAATTTTTGGACATTATATTAAATGAGTGCTATCTGTGAAATTGGTTATATTAGG
TGGCTTGACTAATGTTTTTTCTATAATTGTATATGGACTGCATTTTTAAAAAAACCGCATTTGCCTTTATGCTAG
ATTGTAAAAAATTATATTAGAATGCATAAGACATGTTTTTCCTTCATATGCTAGACTTTTCCTAGCATTTCGTAT
TTCTGTGTTGTCAGTGTGTGATTTTTAAACCGGAATTTGGTTTAAAAAAAATCTGGTGGTAATATATGTGAGAAA
TACTTTGGTGTTTACCTTATGAAAATAAAGGATTGTAAGTAAAGTTTCCTGCGCACCTTATACCAGAATTCAGTA
TAATACACTACTTTCTGTTTTCAAACAGATAAATCATAATATAGTCTGTATTATCTGTAAGATCTGTCTTGTAAA
CCACATTCTTGACAACTATTTGCTTTTGAGTAGTTTGTATTTTAATATGTGACTTTTGTCTTGAAAAGTAGTAAA
GCCATAGACTTGTGCAAAACAAGTTTCAAGTTTATAGATATTAAGTTTGTAATGTGAGCATCAAATGTGTATGTA
AAAATACTTTTTACCAGTCTGGAACTTGGGAAAATCCAGGGAATTTGAAACATAGATTTTAATGAGCTGGTAAAC

FIGURE 813B

ACAAATCATGTCAATAAAGGTAGTCAGGATATTTTATCCTTAGCATTGCTTCTGC

FIGURE 814

MGGAVSAGEDNEELIDNLKEAQYIRTELVEQAFRAIDRADYYLEEFKENAYKDLAWKHGNIHLSAPCIYSEVMEA
LDLQPGLSFLNLGSGTGYLSSMVGLILGPFGVNHGVELHSDVIEYAKQKLDFFIRTSDSFDKFDFCEPSFVTGNC
LEISPDCSQYDRVYCGAGVQKEHEEYMKNLLKVGGILVMPLEEKLTKITRTGPSAWETKKILAVSFAPLIQPCHS
ESGKSRLVQLPPVAVRSLQDLARIAIRGTIKKIIHQETVSKNGNGLKNTPRFKRRRVRRRMETIVFLDKEVFAS
RISNPSDDNSCEDLEEERREEEEKTPPETKPDPPVNFLRQKVLSLPLPDPLKYYLLYYREK

FIGURE 815

CGAGGGCAGCGCCGGTCGGGAGCGCAGCGCGGCGCAGCTCGGCGCGCACGGCGGGAGCGGCGCGCGAGTGGTCGG
GCCTGGCGGCTGGACGGGCGCCCCTCGCTGCCCCGCGCGCTCCCCGCCGCCCCCCATGAGCGCAGCCCCGCGCGG
CCCGGGTCCGTAGGCGGCGGGGCGCCCCCCATGCTGCTGCAGCCCGCGCCGTGCGCCCCGAGCGCGGGCTTCCCG
CGGCCCCTGGCCGCCCCCGGCGCC**ATG**CACGGCTCGCAGAAGGACACCACGTTCACCAAGATCTTCGTGGGCGGC
CTGCCGTACCACACTACCGACGCCTCGCTCAGGAAGTACTTCGAGGGCTTCGGCGACATCGAGGAGGCCGTGGTC
ATCACCGACCGCCAGACGGGCAAGTCCCGCGGCTACGGCTTCGTGACCATGGCCGACCGGGCGGCAGCTGAGAGG
GCTTGCAAAGACCCGAACCCCATCATCGACGGCCGCAAGGCCAACGTGAACCTGGCATATCTGGGCGCCAAGCCG
CGGAGCCTCCAGACGGGCTTTGCCATTGGGGTGCAGCAGCTGCACCCCACCTTGATCCAGCGGACTTACGGGCTG
ACCCCGCACTACATCTACCCACCAGCCATCGTGCAGCCCAGCGTGGTGATCCCAGCCGCCCCTGTCCCGTCGCTG
TCCTCGCCCTACATTGAGTACACGCCGGCCAGCCCGGCCTACGCCCAGTACCCACCGGCCACCTATGACCAGTAC
CCATACGCCGCCTCGCCTGCCACGGCTGCCAGCTTCGTGGGCTACAGCTACCCTGCCGCCGTGCCCCAGGCCCTC
TCAGCCGCAGCACCCGCGGGCACCACTTTCGTGCAGTACCAGGCGCCGCAGCTGCAGCCTGACAGGATGCAG**TGA**

GGGGCGTTCCTGCCCCGAGGACTGTGGCATTGTCACCTTCACAGCAGACAGAGCTGCCAGGCCATGATGGGCTGG
CGACAGCCCGGCTGAGCTTTAGTGAGGTGCCACCAGCACCCGTGCCTCCGAAGACCGCTCGGGCATTCCGCCTGC
GCCCTGGGACAGCGGAGAGATGGCTTCTCTTTAATCTAGGTCCCATTGTGTCTTGAGGGAGGACTTTAAGAATGA
CTGAGAACTATTTAAAGACGCAATCCCAGGTTCCTTGCACACCATGGCAGCCTCTTCTTGCACCTTCTCCTGCCT
CTCCACACTCCAGGTTCCCTCAGGCTTGTGTCCCCACTGCTGCATCGTGGCGGGGTGTCACAGACCCTCTGCAGC
CCCTGGCTGCCCTGGACTGTGCAGAGATGCCTGACTCCAGGGAAACCTGAAAGCAAGAAGTTAATGGACTGTTTA
TTGTAACTTGATCCTCCCGAGCTGTGAGCGCAGTCTGAGGTGTGAGGACACGGCCTCCTGTTGGAGTCCCATTTT
CTCCATCAGGGCACGTGGGCGGCTTCCTCAAGCCCGGAGGAGCTCCCAGGCGCACAGGGGCCGCCGGTAACAGGG
GCCGCCGGCCAAAGGCCCCTTTCCAGTCATAGCACTGAAGTTGCAACTTTTTTCTTGTAATTGTTTTGCTACTAA
GATAATTTCAGAAGTTCAGTCTATTTTTTCAGCGGATACTGCCGCCACCAAGAATCCAAAACCTATTTTTGACTT
GGAGAGACTTGCTTTTGTTGGTTCCGCCCGTGGAGACGACGACAGTGTTTCTGTATAATAAAGTGTCTGCCGGCT
CGCGGGCCAGGATCCTCTCGGTGGGATGGGCACCACAGACAGGAGGCCCCTCAGGCCCGTGCGGGCCACTGTCTG
CTGCCGCCTGCCGGGGTGGCAGAGTGAGTTGTCTCAGGACCCCGTCACTGCGACGTTGACACTCTCTCCTTCCTT
CCTTCCCCAACTCCCCAAACACTGTGGAAGGGAAGAAGGAAGTGATCCACAGCATTCAGGCCACTTGGGGTCTAG
ACCATGGTGGTGCCAGCCTGGGGGGGGCAGTGGCCCTCAGCTCTGCCCGCTGGAGCGGTTGAGTGCAGAAGGGTG
CGCCTCTTCCCTCTACCCCCGCACCACCTGCTGTGTGCCAGCCTGAGACGGTTCCTGCCTGTCTTGGGGGTTGGT
GGAGGGTGGAGGCAGTTCTGCCAGCCGTGGCAGGGCTGCTATGGGGCATCCAGGGCTGTGGGGGTCTGGAGGAGG
GGACATGAGGTGAGAGGTATCCTGGCCGAGGGCGGGGGGCAGCGGGGGGTCTCCCTCCGGACCTACCTCAGGGAG
CTGAGCGTGCAGGCGCTCCAGGGCAGGCCTGGGACAGAGTCAAGGCTCAGAGAATAAAGGTAGCTAATCTCATCA
TAATATTTTTATTAGAATGTTCTGATGATAAAAATAAAACTTGTTTTCTTT

FIGURE 816

MHGSQKDTTFTKIFVGGLPYHTTDASLRKYFEGFGDIEEAVVITDRQTGKSRGYGFVTMADRAAAERACKDPNPI
IDGRKANVNLAYLGAKPRSLQTGFAIGVQQLHPTLIQRTYGLTPHYIYPPAIVQPSVVIPAAPVPSLSSPYIEYT
PASPAYAQYPPATYDQYPYAASPATAASFVGYSYPAAVPQALSAAAPAGTTFVQYQAPQLQPDRMQ

FIGURE 817

GAGCCCAGCCGAGCGTCCGCCGCTGCCCGTGCGCCTCTGCGCTCCGCGCC**ATG**GCCGGCCTCAACTCCCTGGAGG
CGGTGAAACGCAAGATCCAGGCCCTGCAGCAGCAGGCGGACGAGGCGGAAGACCGCGCGCAGGGCCTGCAGCGGG
AGCTGGACGGCGAGCGCGAGCGGCGCGAGAAAGCTGAAGGTGATGTGGCCGCCCTCAACCGACGCATCCAGCTCG
TTGAGGAGGAGTTGGACAGGGCTCAGGAACGACTGGCCACGGCCCTGCAGAAGCTGGAGGAGGCAGAAAAAGCTG
CAGATGAGAGTGAGAGAGGAATGAAGGTGATAGAAAACCGGGCCATGAAGGATGAGGAGAAGATGGAGATTCAGG
AGATGCAGCTCAAAGAGGCCAAGCACATTGCGGAAGAGGCTGACCGCAAATACGAGGAGGTAGCTCGTAAGCTGG
TCATCCTGGAGGGTGAGCTGGAGAGGGCAGAGGAGCGTGCGGAGGTGTCTGAACTAAAATGTGGTGACCTGGAAG
AAGAACTCAAGAATGTTACTAACAATCTGAAATCTCTGGAGGCTGCATCTGAAAAGTATTCTGAAAAGGAGGACA
AATATGAAGAAGAAATTAAACTTCTGTCTGACAAACTGAAAGAGGCTGAGACCCGTGCTGAATTTGCAGAGAGAA
CGGTTGCAAAACTGGAAAAGACAATTGATGACCTGGAAGAGAAACTTGCCCAGGCCAAAGAAGAGAACGTGGGCT
TACATCAGACACTGGATCAGACACTAAACGAACTTAACTGTATA**TAA**GCAAAACAGAAGAGTCTTGTTCCAACAG
AAACTCTGGAGCTCCGTGGGTCTTTCTCTTCTCTTGTAAGAAGTTCCTTTTGTTATTGCCATCTTCGCTTTGCTG
GAAATGTCAAGCAAATTATGAATACATGACCAAATATTTTGTATCGGAGAAGCTTTGAGCACCAGTTAAATCTCA
TTCCTTCCCTTTTTTTTTCAAATGGCACCAGCTTTTTCAGCTCTCTTATTTTTTCCTTAAGTAGCATTTATTCCT
AAGGTAGGCAGGGTATTTCCTAGTAAGCATACTTTCTTAAGACGGAGGCCATTTGGTTCCTGGGAGAATAGGCAG
CCCCACACTTTGAAGAATACAGACCCCAGTATCTAGTCGTGGATATAATTAAAACGCTGAAGACCATAACCTTTT
GGGTCAACTGTTGGTCAAACTATAGGAGAGACCAGGGACCATCACATGGGTAGGGATTTTCCATCCAGAGCCAAT
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